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Microcircuit Device Reliability

DIGITAL EVALUATION AND FAILURE ANALYSIS DATA PART - 1

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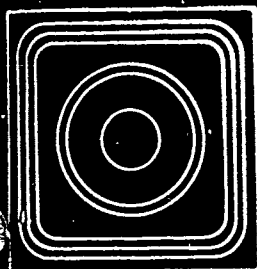
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Supplementary Notes

This is one of a series of microcircuit device reliability publications.

Abstract (Limit 200 words)

→ This compendium of digital SSI/MSI microcircuit device reliability is separated into two volumes. Part I deals with general summaries and detailed listings which address the various aspects of burn-in and environmental/screening tests at the component level. Devices are classified according to test types and are arranged by test source, device function, operational type, device manufacturer, and commercial part number. Part II contains summaries of failure analysis data based upon failure indicators, failure modes, failure defects, failure defect causes, and failure activating stresses, as well as a detailed listing of verified failure events as derived from device- and equipment-level testing. ↗

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Reliability	Environmental/Screening Testing
Digital Devices	Failure Analysis Results

b. Identifiers/Open-Ended Terms

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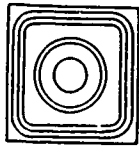
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DIGITAL EVALUATION AND FAILURE ANALYSIS DATA, PART 1

Summer 1980

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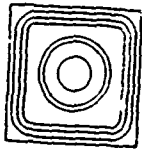
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Data are collected on a continuous basis from a broad range of sources including testing laboratories, device and equipment manufacturers, government laboratories, and equipment users, both government and nongovernment. Automatic distribution lists, voluntary data submittal, and field failure reporting systems supplement an intensive data solicitation program.

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PREFACE

DIGITAL EVALUATION AND FAILURE ANALYSIS DATA is one of a series of annual microcircuit device reliability data publications compiled by the Reliability Analysis Center. Other volumes consider digital failure rate data, discrete semiconductors, hybrid devices, and memory/LSI devices. An additional volume is dedicated to nonelectronic device reliability.

Each document in the series contains analyzed reliability information in addition to a detailed presentation of field and test results. This information aids in determining device fallout rates and the operational test and field characteristics of devices. Life test results and their relationships to field experience, as well as observed versus predicted failure rates, can be reviewed. The relative risks of screening decisions may also be determined. Additionally, information is available to form the foundation for failure mode effects and criticality analyses (FMECA). Through the data presented, these publications are intended to actively complement such publications as MIL-STD-883 and MIL-HDBK-217C. The user is cautioned, however, that the data contained herein may not be used in lieu of contractually cited references.

The detailed data sections of this publication, in addition to selected summary tables, were printed directly from the Reliability Analysis Center's computerized database utilizing a customized file system approach developed by the RAC programming staff. This system allows the generation of special reports and analyses wherein the data are categorized to match the needs of the user. The author would especially like to thank Edward J. Szwedz for his work in providing the software for the failure summaries and the detailed listings presented in Part 2 of this publication.

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INTRODUCTION

The publication of Digital Evaluation and Failure Analysis Data, Cat. No. MDR-15, represents a new dimension in the presentation of the Reliability Analysis Center's series of microcircuit device reliability compendiums. Intended as an update to Digital Evaluation and Generic Failure Analysis Data, Cat. No. MDR-10, issued in January, 1979, the scope of the book has been expanded to encompass a more detailed and refined approach to digital microcircuit failure analysis data. The introduction of this feature has necessitated that MDR-15 be issued in two separate volumes, to be discussed below. All of the data for this publication were collected, reduced and summarized from reports issued by a broad spectrum of government and industry sources by the Reliability Analysis Center in order to present objective information in a format compatible with general user understanding.

The first volume of Digital Evaluation and Failure Analysis Data is divided into two major sections dealing with burn-in and environmental/screening test data summaries (Section 1) and a computerized detailed listing (Section 2) from which the summaries are derived. The summary section is presented such that comparisons of operational types (TTL, MOS, etc.) and package types (Hermetic DIP, Plastic DIP, Hermetic Flatpack) with a variety of test types, test durations and test sequences allow maximum visibility into those factors affecting the most effective screening evaluation programs. The detailed burn-in and environmental/screening test data listings are presented at the part number level and are categorized for burn-in, environmental, board-level environmental, equipment-level environmental, environmental burn-in, and step stress tests.

The second volume of MDR-15 is dedicated to the analysis of digital SSI/MSI failure event information in summarized (Section 3) and detailed (Section 4) formats. The failure data found in the detailed listing, from which the failure summaries are derived, are listed by Microcircuit Failure Event File report number (MFEF #) and represent failure descriptions as reported from device screening programs, equipment level testing, and actual field operation. The failure

summary section is classified according to Failure Indicator, Failure Mode, Failure Defect, Failure Defect Cause, and Failure Activating Stress, as determined for each microcircuit operational logic type.

The data included herein may be applied to part selection, as well as aid in the evaluation and determination of an optimum part-level screening program through analysis of the interdependencies between device characteristics and associated electrical/environmental test parameters. The reader will, based upon the failure summaries presented, also be able to identify those failure characteristics peculiar to any generic class of devices, thus enabling him to use the most cost-effective evaluation tests in order to screen his parts, or to identify the most prevalent indicators of failure. This latter feature is most beneficially applied by those interested in performing FMECA or Fault Tree Analysis techniques on a given equipment design.

GLOSSARY OF TERMS AND ABBREVIATIONS USED IN THE DATA ANALYSIS

The Usage Guides, located on pages 67 in Volume I and 54 in Volume II, contain definitions for the terms and conventions used within the computerized detailed listings of Sections 2 and 4. A listing of the basic terms and abbreviations used throughout the summarized tables of Sections 1 and 3, and based upon the Usage Guides of Sections 2 and 4, is included here in order to allow the reader to become familiar with them so that he may avoid having to reference back and forth between the Usage Guides and the summarized tables.

BURN-IN

OP CNST	Constant Operation Test
OP DYN	Dynamic Operation Test
PAR EXC	Parallel Excitation Test
REV BIAS	Reverse Bias Test
RING CNT	Ring Counter Test
BURN-IN (NOC)	Burn-In Test (Not Otherwise Classified)

ENVIRONMENTAL/SCREENING TEST TYPE

AUTOCLV	Autoclave Test
CONSTANT ACC (CNST ACC)	Constant Acceleration Test
DYNAMIC EM	Dynamic Test, Electrical Measurements
EM	Electrical Measurements
FUNCTIONAL EM	Functional Test, Electrical Measurements
HT CONT	High Temperature Continuity Test
MECH SHOCK	Mechanical Shock Test
MOISTURE RES	Moisture Resistance Test
SALT ATMOS	Salt Atmosphere Test
S&F EM	Static and Functional Test, Electrical Measurements

GLOSSARY OF TERMS AND ABBREVIATIONS
USED IN THE DATA ANALYSIS (Cont'd)

SDF EM	Static, Dynamic, Functional Test, Electrical Measurements
STAT EM	Static Test, Electrical Measurements
TEMP CYCLE	Temperature Cycle Test
TERMINAL STR	Terminal Strength Test
THERM SHOCK	Thermal Shock Test
VBVRFQ	Vibration Varying Frequency Test
VISUAL INSP (VIS INSP)	Visual Inspection Test

FAILURE ANALYSIS DEFINITIONS

FAILURE ACTIVATING STRESS	The physical characteristic of stress(es) which was primarily responsible for activating the failure defect cause/description.
FAILURE DEFECT CAUSE	The responsible chemical/electrical/mechanical/thermal phenomena which culminated in device parameter degradation or catastrophic failure.
FAILURE DEFECT DESCRIPTION	A detailed description of the physical characteristics of the failure mode.
FAILURE EVENT	A detailed description of the physical and/or electrical attributes of the failure, including the failure indicator, failure mode, failure defect, failure defect cause, and failure activating stress(es), where such information is reported.

GLOSSARY OF TERMS AND ABBREVIATIONS USED IN THE DATA ANALYSIS (Cont'd)

FAILURE INDICATOR The failure condition identified by parametric measurements of the device prior to performing destructive analyses.

FAILURE MODE The physical location within the device which is caused to catastrophically fail or degrade due to exposure to chemical/electrical/mechanical/thermal environments.

OPERATIONAL TYPE

CMOS	Complementary Metal Oxide Semiconductor
PMOS	P-Channel Metal Oxide Semiconductor
DTL	Diode-Transistor Logic
ECL	Emitter Coupled Logic
RTL	Resistor-Transistor Logic
SUHL	Sylvania Universal High Level Logic
HTTL	High Speed TTL
LTTL	Low Power TTL
LSTTL	Low Power Schottky TTL
STTL	Schottky TTL
TTL	Transistor-Transistor Logic
N.R.	Not Reported

GLOSSARY OF TERMS AND ABBREVIATIONS USED IN THE DATA ANALYSIS (Cont'd)

PACKAGE TYPE

HDIP	Hermetic Dual-In-Line Package
PDIP	Plastic Dual-In-Line Package
HFPK	Hermetic Flat Package
N.R.	Not Reported

STRESS LEVEL

ARCS	Number of Arcs
AXES	As Defined in MIL-STD-883B
BDS	Number of Bonds
BLOS	Number of Blows
C	Degrees Centigrade
CYC/CY	Number of Cycles
DEG	Degrees
DT	Dwell Time
E	Each
FLUOR	Fluorocarbon
FO	Fan Out
G	Gravitational Acceleration Constant
GMS MSQ	Grams Per Square Meter
HE	Helium
HZ	Hertz
IL	Leakage Current
KCY	Kilocycles
KG	Kilograms
KHZ	Kilohertz
MA	Milliamps
MIN	Minutes

GLOSSARY OF TERMS AND ABBREVIATIONS
USED IN THE DATA ANALYSIS (Cont'd)

MSEC	Milliseconds
OZ	Ounces
%	Percent
PSIG	Pounds Per Square Inch, Guage (PSIG=PSIA + 15 at sea level)
RADIS	Radioisotope
RH	Relative Humidity
SEC	Seconds
X	Times (magnification)

MICROCIRCUIT DEVICE RELIABILITY

DIGITAL EVALUATION AND
FAILURE ANALYSIS DATA

SECTION 1

DIGITAL EVALUATION DATA -
SUMMARIZED DATA

SECTION 1

DIGITAL EVALUATION DATA - SUMMARIZED DATA

The summarized data included within Section 1 are intended to reflect the relationship between physical microcircuit attributes and the stresses of associated burn-in and environmental/screening evaluations. Readers will discover pertinent data relating operational performance, package integrity and test types to burn-in test durations in the subsection entitled "Summarized Burn-In Data". The second category of Section 1 is entitled "Summarized Environmental/Screening Data" and analyzes the available digital microcircuit data at various levels of summarized detail based upon device operational type, package classification and construction, and the number of stresses employed in any referenced test sequence. In all cases, comparisons are made between pre- and post-stress device fallout rates.

The two above-referenced subsections are derived from the detailed data listings in Section 2 but also incorporate historical data which have appeared in the detailed listings of previous publications. Device data submitted by microcircuit vendors, while included in Section 2 of this publication, have been excluded from these summary tables wherever possible.

Additional information related to microcircuit screening effectiveness and techniques is contained in the Reliability Analysis Center publication "Microcircuit Screening Effectiveness," TRS-1. This document is directly available from the RAC.

SUMMARIZED BURN-IN DATA

The data presented within this subsection are identical in format to the predecessor tables of MDR-10, "Digital Evaluation and Generic Failure Analysis Data." As in MDR-10, the data are based on burn-in and environmental burn-in test results for digital SSI/MSI microcircuits as listed in Section 2 of this publication. For reference purposes, the test date cutoff point was established as January, 1975, i.e., data from tests conducted prior to this date are included within the summary tables, but excluded from the detailed listings.

The results contained herein have been analyzed according to operational logic type (as represented by Tables 1 through 8), package type/construction (Tables 9 through 16) and burn-in test type (Tables 17 through 24), where only part-level tests were taken into consideration. Within each of these three major classifications, refinement has taken place to form groups which are representative of incremental test durations (based on 24 hour intervals), thereby providing a means for comparison between device fallout rates (in percent defective) and varying test durations. Part hours at each summary level have been provided to allow the reader to determine, if necessary, the average number of test hours for each data entry. Entries which did not exhibit a factor of 24 hours for a test duration were grouped into the closest representative category. For example, a data entry which exhibited a burn-in test duration of 160 hours would be included within the 168-hour summary tables. The temperature stress for the majority of the burn-in tests is 125°C, and both static and dynamic tests have been utilized, as indicated in Tables 17 through 24.

From within each test duration category an additional refinement has taken place according to burn-in and environmental burn-in tests. The former represents a burn-in test usually followed and sometimes preceded by a non-stressed evaluation (visual inspection, electrical measurements, etc.). The latter category, denoted by an asterisk(*) in the summary tables, indicates a burn-in test which followed directly after a sequence of mechanical/thermal stress testing, as well as a pre- and post-burn-in non-stressed screening. The percent defective values calculated for these entries reflect the device fallout rates for the burn-in tests

only. Comparisons can then be made between stressed and non-stressed device populations, indicating the contribution of each to the data entry subtotal.

In examining the aggregate totals for all microcircuit devices, regardless of operational type, package type, or burn-in test type, the most interesting result encountered is that the percent defective value for parts that underwent an environmental screening sequence prior to burn-in testing is only 20% higher than the percentage fallout for unscreened devices. Looking more closely at the results, however, provides additional insight into some of the phenomena comprising this outcome. From Table 1, HTTL, STTL, and Standard TTL devices exhibit fallout rates between 1.1 and 1.7 percent, regardless of the degree of stress testing, while the low-power TTL devices (Schottky and Standard) present values representing approximately 50% of this result. Additionally, both of the low-power TTL logic families have fallout rates which are higher for the unscreened devices than the screened parts. The reverse is true for High Speed TTL, while standard TTL exhibits a 1.1% reject rate regardless of the prior screening criteria. The distribution of fallout rates as a function of burn-in test duration is left to the reader.

Examining the burn-in test results by package-type (Table 9) indicates that, regardless of the package configuration, the device fallout rate for unscreened devices is consistently lower than the fallout rate for parts subjected to an environmental test sequence. As expected, the reject value for hermetic flatpacks is smaller than the value for hermetic DIPs, reflecting a higher overall package integrity. It is somewhat surprising, however, to see an overall percent defective rate of 0.99 for plastic DIPs as compared to the 3.0 value for hermetic DIPs, as you would traditionally expect the results to be somewhat more comparable, if not opposite. This can best be explained by the fact that a large percentage of the plastic devices were burned-in at a temperature of 100°C, rather than 125°C. In fact, the reject rate for plastic parts is approximately 1.3 percent for the data added to this publication (screened devices, 125°C temperature, 168-hour average burn-in duration) since MDR-10, a result that maintains the HDIP/PDIP discrepancy, but begins to explain the apparent anomaly. The reader is cautioned, however, against drawing objective conclusions due to the relatively limited

amount of data involved in these summaries and the number of variables, which may or may not be apparent from the reported data, utilized in their compilation.

Finally, evaluating the effectiveness of several burn-in test types in screening out infant mortality failures (Table 17) indicates the relative success of Reverse Bias testing when compared to Operational Constant and Operational Dynamic tests, although the quantity of data for these latter two tests is overshadowed by the former category. Once again, the results reveal that the burn-in exposure of screened devices yields a higher percent defective value than for unscreened devices, disregarding the insufficient data from the Operational Constant category and the unknown characteristics of the Burn-In (NOC) category. The reader is, again, encouraged to examine the tables provided as a function of test duration in order to ascertain the contribution and relative impact of each test duration category on the aggregate results.

TABLE 1: BURN-IN RESULTS BY OPERATIONAL TYPE

TOTAL FOR ALL BURN-IN TESTS

Operational Type	Number Tested	Number Failed	Part Hours	% Defective	Avg Hours on Test Per Device
CMOS	915	10	94,968	1.1	104
CMOS*	1,849	329	286,080	18	155
SUB TOTAL	2,764	339	381,048	12	138
DTL	75	0	7,200	-	96
DTL*	11,147	149	1,872,696	1.3	168
SUB TOTAL	11,222	149	1,879,896	1.3	168
ECL*	100	1	16,800	1.0	163
RTL*	36,433	797	6,006,740	2.2	165
SUHL*	252,036	4,970	34,750,124	2.0	138
HTTL	49,534	288	5,310,163	0.58	107
HTTL*	52,829	1,412	8,730,360	2.7	165
SUB TOTAL	102,363	1,700	14,040,523	1.7	137
LITL	6,605	130	1,043,544	2.0	158
LITL*	142,741	652	23,988,672	0.46	168
SUB TOTAL	149,346	782	25,032,216	0.52	168
LSTTL	22,474	223	3,775,632	1.0	168
LSTTL*	134,020	981	22,367,520	0.73	167
SUB TOTAL	156,494	1,204	26,143,152	0.77	167

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

TABLE 1: BURN-IN RESULTS BY OPERATIONAL TYPE
TOTAL FOR ALL BURN-IN TESTS (Cont'd)

Operational Type	Number Tested	Number Failed	Part Hours	% Defective	Avg Hours on Test Per Device
STTL*	56,197	772	8,809,800	1.4	157
TTL	133,374	1,447	16,630,111	1.1	125
TTL*	1,661,483	18,658	274,685,007	1.1	165
SUB TOTAL	1,794,857	20,105	291,315,118	1.1	162
TOTAL FOR ALL DEVICES	2,561,812	30,819	408,375,417	1.2	159
TOTAL FOR UNSCREENED PARTS	212,977	2,098	26,861,618	1.0	126
TOTAL FOR SCREENED PARTS*	2,348,835	28,721	381,513,799	1.2	162

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

TABLE 2: BURN-IN RESULTS BY OPERATIONAL TYPE

24-HOUR BURN-IN TESTS

Operational Type	Number Tested	Number Failed	Part Hours	Defective
CMOS	290	2	7,920	0.69
HTTL*	272	4	6,528	1.5
LSTTL*	1,130	27	20,400	2.4
STTL*	4,320	6	103,680	0.14
TTL*	357	8	8,568	2.2
TOTALS	6,369	47	147,096	0.74

TABLE 3: BURN-IN RESULTS BY OPERATIONAL TYPE

72-HOUR BURN-IN TESTS

Operational Type	Number Tested	Number Failed	Part hours	Defective
CMOS	50	0	3,600	-
HTTL*	84	2	6,048	2.4
TTL	35,897	130	2,903,786	0.36
TTL*	4,097	101	287,280	2.5
SUB TOTAL	39,994	231	3,191,066	0.58
TOTALS	40,128	233	3,200,714	0.58

TABLE 4: BURN-IN RESULTS BY OPERATIONAL TYPE

96-HOUR BURN-IN TESTS

Operational Type	Number Tested	Number Failed	Part Hours	Defective
CMOS	50	0	4,800	-
CMOS*	240	34	23,040	14
SUB TOTAL	290	34	27,840	12
DTL	75	0	7,200	-
HTTL	42,319	73	4,129,515	0.17
HTTL*	1,923	132	208,584	6.9
SUB TOTAL	44,242	205	4,338,099	0.46
LTTL	918	27	88,128	2.9
LSTTL*	50	0	4,800	-
STTL*	128	1	12,288	0.78
TTL	37,376	113	3,629,357	0.30
TTL*	8,599	483	803,928	5.6
SUB TOTAL	45,975	596	4,433,285	1.3
TOTALS	91,673	863	8,911,640	0.94

TABLE 5: BURN-IN RESULTS BY OPERATIONAL TYPE
120-HOUR BURN-IN TESTS

Operational Type	Number Tested	Number Failed	Part Hours	% Defective
LTTL* TOTALS	14	1	1,680	7.1

TABLE 6: BURN-IN RESULTS BY OPERATIONAL TYPE
144-HOUR BURN-IN TESTS

Operational Type	Number Tested	Number Failed	Part Hours	% Defective
SUHL*	234,107	3,980	31,809,768	1.7
TTL*	114,519	343	16,163,112	0.30
TOTALS	348,626	4,323	47,972,880	1.2

TABLE 7: BURN-IN RESULTS BY OPERATIONAL TYPE
168-HOUR BURN-IN TESTS

Operational Type	Number Tested	Number Failed	Part Hours	% Defective
CMOS	402	7	52,416	1.7
CMOS*	1,609	295	263,040	18
SUB TOTAL	2,011	302	315,456	15
DTL*	11,147	149	1,872,696	1.3
ECL*	100	1	16,800	1.0
RTL*	36,433	797	6,006,740	2.2
SUHL*	17,929	990	2,940,356	5.5
HTTL	7,215	215	1,180,648	3.0
HTTL*	50,550	1,274	8,509,200	2.5
SUB TOTAL	57,765	1,489	9,689,848	2.6
LTTL	5,687	103	955,416	1.8
LTTL*	142,604	641	23,957,472	0.45
SUB TOTAL	148,291	744	24,912,888	0.50
LSTTL	22,474	223	3,775,632	0.99
LSTTL*	132,490	954	22,258,320	0.72
SUB TOTAL	154,964	1,177	26,033,952	0.76
STTL*	51,749	765	8,693,832	1.5
TTL	60,101	1,204	10,096,968	2.0
TTL*	1,527,385	17,503	255,986,408	1.2
SUB TOTAL	1,587,486	18,707	266,083,376	1.2
TOTALS	2,067,875	25,121	346,565,944	1.2

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

TABLE 8: BURN-IN RESULTS BY OPERATIONAL TYPE
240-HOUR BURN-IN TESTS

Operational Type	Number Tested	Number Failed	Part Hours	% Defective
CMOS	123	1	26,232	0.81
LTTL*	123	10	29,520	8.1
LSTTL*	350	0	84,000	-
<u>TTL*</u>	<u>6,526</u>	<u>220</u>	<u>1,435,711</u>	<u>3.4</u>
TOTALS	7,122	231	1,575,463	3.2

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

TABLE 9: BURN-IN RESULTS BY PACKAGE TYPE

TOTAL FOR ALL BURN-IN TESTS

Package Type	Stress Level	Number Tested	Number Failed	Part Hours	% Defective	Avg Hours on Test Per Device
CAN	125°C	302	4	50,736	1.3	168
CAN*	125°C	33,458	652	5,506,940	2.0	165
SUB TOTAL		33,760	656	5,557,676	1.9	165
HDIP	125°C	21,407	559	3,250,301	2.6	152
HDIP*	125°C	81,761	2,544	13,922,599	3.1	170
SUB TOTAL		103,168	3,103	17,172,900	3.0	166
PDIP	100/125°C	95,935	591	12,183,210	0.62	127
PDIP*	100/125°C	1,958,881	19,664	323,834,952	1.0	165
SUB TOTAL		2,054,816	20,255	336,018,162	0.99	164
HFPK	125°C	81,995	915	10,126,863	1.1	124
HFPK*	125°C	272,725	5,858	37,911,628	2.2	139
SUB TOTAL		354,720	6,773	48,038,491	1.9	135
N.R.	N.R.	13,338	29	1,250,508	0.22	94
N.R.*	125°C	2,010	3	337,680	0.15	168
SUB TOTAL		15,348	32	1,588,188	0.21	103
TOTAL FOR ALL DEVICES		2,561,812	30,819	408,375,417	1.2	159
TOTAL FOR UNSCREENED PARTS		212,977	2,098	26,861,618	1.0	126
TOTAL FOR SCREENED PARTS*		2,348,835	28,721	381,513,799	1.2	162

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

TABLE 10: BURN-IN RESULTS BY PACKAGE TYPE

24-HOUR BURN-IN TESTS

Package Type	Stress Level	Number Tested	Number Failed	Part Hours	% Defective
PDIP*	100°C	4,959	18	119,016	0.36
	125°C	1,120	27	20,160	2.4
SUB TOTAL		6,079	45	139,176	0.74
N.R.	N.R.	290	2	7,920	0.69
TOTALS		6,369	47	147,096	0.74

TABLE 11: BURN-IN RESULTS BY PACKAGE TYPE

72-HOUR BURN-IN TESTS

Package Type	Stress Level	Number Tested	Number Failed	Part Hours	% Defective
HFPK*	125°C	968	7	61,992	0.72
PDIP	125°C	35,897	130	2,903,786	0.36
PDIP*	125°C	3,213	96	231,336	3.0
SUB TOTAL		39,110	226	3,135,122	0.58
N.R.	N.R.	50	1	3,600	-
TOTALS		40,128	233	3,200,714	0.58

TABLE 12: BURN-IN RESULTS BY PACKAGE TYPE

96-HOUR BURN-IN TESTS

Package Type	Stress Level	Number Tested	Number Failed	Part Hours	% Defective
HDIP	125°C	4,769	23	455,117	0.48
HDIP*	125°C	2,227	72	219,744	3.2
SUB TOTAL		6,996	95	674,861	1.4
PDIP	125°C	11,472	49	1,146,240	0.43
PDIP*	125°C	5,322	429	474,216	8.1
SUB TOTAL		16,794	478	1,620,456	2.9
HFPK	125°C	51,599	117	5,020,335	0.23
HFPK*	125°C	3,391	149	358,680	4.4
SUB TOTAL		54,990	266	5,379,015	0.48
N.R.	125°C	12,898	24	1,237,308	0.19
TOTALS		91,678	863	8,911,640	0.94

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

TABLE 13: BURN-IN RESULTS BY PACKAGE TYPE

120-HOUR BURN-IN TESTS

Package Type	Stress Level	Number Tested	Number Failed	Part Hours	% Defective
HDIP* TOTALS	125°C	14	1	1,680	7.1

TABLE 14: BURN-IN RESULTS BY PACKAGE TYPE

144-HOUR BURN-IN TESTS

Package Type	Stress Level	Number Tested	Number Failed	Part Hours	% Defective
PDIP*	100°C	114,519	343	16,163,112	0.30
HFPK*	125°C	<u>234,107</u>	<u>3,980</u>	<u>31,809,768</u>	<u>1.7</u>
TOTALS		348,626	4,323	47,972,880	1.2

TABLE 15: BURN-IN RESULTS BY PACKAGE TYPE

168-HOUR BURN-IN TESTS

Package Type	Stress Level	Number Tested	Number Failed	Part Hours	% Defective
CAN	125°C	302	4	50,736	1.3
CAN*	125°C	<u>33,458</u>	<u>652</u>	<u>5,506,940</u>	<u>2.0</u>
SUB TOTAL		33,760	656	5,557,676	1.9
HDIP	125°C	16,638	536	2,795,184	3.2
HDIP*	125°C	<u>73,025</u>	<u>2,242</u>	<u>12,272,904</u>	<u>3.1</u>
SUB TOTAL		89,663	2,778	15,068,088	3.1
PDIP	100/125°C	48,443	411	8,106,952	0.85
PDIP*	100/125°C	<u>1,829,398</u>	<u>18,751</u>	<u>306,743,112</u>	<u>1.0</u>
SUB TOTAL		1,877,841	19,162	314,850,064	1.0
HFPK	125°C	30,396	792	5,106,528	2.6
HFPK*	125°C	<u>34,105</u>	<u>1,721</u>	<u>5,644,228</u>	<u>5.1</u>
SUB TOTAL		64,501	2,519	10,750,756	3.9
N.R.	N.R.	100	3	1,680	3.0
N.R.*	125°C	<u>2,010</u>	<u>3</u>	<u>337,680</u>	<u>0.15</u>
SUB TOTAL		<u>2,110</u>	<u>6</u>	<u>339,360</u>	<u>0.28</u>
TOTALS		2,067,875	25,121	346,565,944	1.2

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

TABLE 16: BURN-IN RESULTS BY PACKAGE TYPE

240-HOUR BURN-IN TESTS

Package Type	Stress Level	Number Tested	Number Failed	Part Hours	% Defective
HDIP*	125°C	6,495	229	1,428,271	3.5
PDIP	125°C	123	1	26,232	0.81
PDIP*	125°C	350	0	84,000	-
SUB TOTAL		473	1	110,232	0.21
HFPK*	125°C	154	1	36,960	0.65
TOTALS		7,122	231	1,575,463	3.2

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

TABLE 17: BURN-IN RESULTS BY TEST TYPE

TOTAL FOR ALL BURN-IN TESTS

Test Type	Number Tested	Number Failed	Part Hours	% Defective	Avg Hours on Test Per Device
OP CNST	379	4	63,672	1.1	168
OP CNST*	2,983	11	501,144	0.37	168
SUB TOTAL	3,362	15	564,816	0.45	168
OP DYN	119,940	349	11,295,722	0.29	94
OP DYN*	306	4	51,408	1.3	168
SUB TOTAL	120,246	353	11,347,130	0.29	94
PAR EXC*	32,109	1,573	5,271,463	4.9	164
REV BIAS	23,429	192	3,880,152	0.82	166
REV BIAS*	2,262,732	25,529	367,168,800	1.1	162
SUB TOTAL	2,286,161	25,721	371,048,952	1.1	162
RING CNT*	31,240	1,334	5,232,096	4.3	167
BURN-IN(NOC)	69,229	1,553	11,622,072	2.2	168
BURN-IN(NOC)*	19,465	270	3,288,888	1.4	169
SUB TOTAL	88,694	1,823	14,910,960	2.1	168
TOTAL FOR ALL DEVICES	2,561,812	30,819	408,375,417	1.2	159
TOTAL FOR UNSCREENED PARTS	212,977	2,098	26,861,618	1.0	126
TOTAL FOR SCREENED PARTS*	2,348,835	28,721	381,513,799	1.2	162

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

TABLE 18: BURN-IN RESULTS BY TEST TYPE
24-HOUR BURN-IN TESTS

Test Type	Number Tested	Number Failed	Part Hours	% Defective
REV BIAS	290	2	7,920	0.69
REV BIAS*	6,079	45	139,176	0.74
SUB TOTAL	<u>6,369</u>	<u>47</u>	<u>147,096</u>	<u>0.74</u>
TOTALS	6,369	47	147,096	0.74

TABLE 19: BURN-IN RESULTS BY TEST TYPE
72-HOUR BURN-IN TESTS

Test Type	Number Tested	Number Failed	Part Hours	% Defective
OP DYN	35,397	130	2,903,786	0.36
PAR EXC*	968	7	61,992	0.72
REV BIAS*	3,213	96	231,336	3.0
BURN-IN(NOC)	<u>50</u>	<u>0</u>	<u>3,600</u>	<u>-</u>
TOTALS	40,128	233	3,200,714	0.58

TABLE 20: BURN-IN RESULTS BY TEST TYPE
96-HOUR BURN-IN TESTS

Test Type	Number Tested	Number Failed	Part Hours	% Defective
OP DYN	80,688	213	7,854,200	0.26
PAR EXC*	5,373	218	554,904	4.1
REV BIAS*	5,567	432	497,736	7.8
BURN-IN(NOC)	<u>50</u>	<u>0</u>	<u>4,800</u>	<u>-</u>
TOTALS	91,678	863	8,911,640	0.94

TABLE 21: BURN-IN RESULTS BY TEST TYPE
120-HOUR BURN-IN TESTS

Test Type	Number Tested	Number Failed	Part Hours	% Defective
BURN-IN(NOC)* TOTALS	14	1	1,680	7.1

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

TABLE 22: BURN-IN RESULTS BY TEST TYPE

144-HOUR BURN-IN TESTS

Test Type	Number Tested	Number Failed	Part Hours	% Defective
REV BIAS* TOTALS	348,626	4,323	47,972,880	1.2

TABLE 23: BURN-IN RESULTS BY TEST TYPE

168-HOUR BURN-IN TESTS

Test Type	Number Tested	Number Failed	Part Hours	% Defective
OP CNST	379	4	63,672	1.1
OP CNST*	2,983	11	501,144	0.37
SUB TOTAL	3,362	15	564,816	0.45
OP DYN	3,232	5	511,504	0.15
OP DYN*	306	4	51,408	1.3
SUB TOTAL	3,538	9	562,912	0.25
PAR EXC*	19,396	1,129	3,255,816	5.8
REV BIAS	23,139	190	3,872,232	0.82
REV BIAS*	1,898,897	20,633	318,243,672	1.1
SUB TOTAL	1,922,036	20,823	322,115,904	1.1
RING CNT*	31,240	1,334	5,232,096	4.3
BURN-IN(NOC)	69,129	1,553	11,613,672	2.3
BURN-IN(NOC)*	19,174	258	3,220,728	1.4
SUB TOTAL	88,303	1,811	14,834,400	2.1
TOTALS	2,067,875	25,121	346,565,944	1.2

TABLE 24: BURN-IN RESULTS BY TEST TYPE

240-HOUR BURN-IN TESTS

Test Type	Number Tested	Number Failed	Part Hours	% Defective
OP DYN	123	1	26,232	0.81
PAR EXC*	6,372	219	1,398,751	3.4
REV BIAS*	350	0	84,000	-
BURN-IN(NOC)*	277	11	66,480	4.0
TOTALS	7,122	231	1,575,463	3.2

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

SUMMARIZED ENVIRONMENTAL/SCREENING DATA

Data within this subsection are, as with the previous subsection, derived from the computerized detailed listings of Section 2 (vendor data excluded) and deal solely with part-level environmental/screening results. The material presented here provides an overview of the effects of thermal/mechanical stress testing on the device fallout rate when considered as a function of operational type, package construction and the severity of the stress test sequence (related as the number of actual stress tests per test sequence).

The general overview of these data is supplied by the stress test summaries of Table 25 (by operational type), Table 26 (by package type), and Table 27 (by the number of stress tests per sequence). The results in each of these tables have been presented to reflect three distinct categories of evaluation: Category A represents test types which do not actively subject the devices to a thermal/mechanical stress and would include the results of pre-cap visual inspection, initial electrical measurements at ambient temperatures, etc.; Category B has been established to highlight the test results achieved by subjecting the parts to a series of stress-induced tests, with up to seven tests performed in the sequence, and includes the results of evaluations (electrical measurements, hermeticity tests, etc.) sandwiched between stress test types; Category C represents the results of post-stress testing (visual inspection, final electrical measurements, etc.) which, when combined with those reject rates obtained from Category B, may be used to judge the effectiveness of the associated environmental/screening program.

Based upon these conventions, the most effective screening results appear to be exhibited for MOS devices, where thermal stresses can be expected to accelerate failure due to die surface anomalies. Bipolar devices (excluding the insignificant entry for LSTTL parts) are fairly consistent in their fallout rates, generally around 1.0%, as a result of environmental stress testing. Examining package types again reveals the integrity of hermetic flat-package parts (relatively low reject rates for all three categories), while plastic DIPs exhibit a higher pre-screen reject rate and a lower post-screen fallout percent than hermetic DIPs. The majority of the thermal stresses for plastic parts were

manifested through thermal shock testing, while hermetic parts were more frequently exposed to temperature cycling stresses. Evaluating the quantity of stresses introduced during a test sequence (Table 27) reveals that approximately 95% of those devices exposed to thermal/mechanical stress were exposed to no more than 3 stress tests for a given sequence, a factor which should be considered when setting up a cost effective screening program. The introduction of each successive stress, between 1 and 3 stresses, subsequently resulted in an increase in the device fallout rates of Category C (1.5%, 2.4%, and 4.6%, respectively), thus indicating a greater degree of efficiency in eliminating infant mortality failures, assuming, of course, that the addition of each stress does not induce an inherently good device to fail.

The remaining tables within this subsection, numbered 28 through 33, provide a more detailed picture of the specific stress levels encountered for each generic device class. The distinction has been made between pre-stress evaluation (Table 28), single stress tests (Tables 29 through 32) and multiple stress tests (Table 33) as a function of specific test types (where sorting is based upon the principle test type), operational types and package types, where the latter two categories provide the second and third levels of sorting. The zero-stress test data (Table 28) incorporate the Category A data from the single and multiple stress test summaries in order to present an expanded foundation for component evaluation. Additionally, the single stress test data have been re-formatted to illustrate their effect on hermetic dual-in-line (Table 29), plastic dual-in-line (Table 30), and hermetic flat (Table 31) packages. Comparisons between these three tables may be used to further evaluate relative package integrity.

For the purpose of this publication, single stress tests are defined as receiving no previous mechanical/thermal stress testing and are not immediately followed by a stress test. Hence, from the multiple stress test table, a test sequence defined as 1)MECH SHOCK, 2)STAT EM, 3)MOISTURE RES, 4)STAT EM, 5)LEAD FATIGUE, 6)FINE LEAK, 7)GROSS LEAK has been utilized in Table 29 through 32 as a MECH SHOCK test followed by a STAT EM evaluation. Again, this convention was incorporated in order to extract maximum efficiency from the available data.

TABLE 25: ENVIRONMENTAL/SCREENING DATA
STRESS TEST SUMMARIES BY OPERATIONAL TYPE

Op Type	Category A			Category B			Category C		
	Number Tested	Number Failed	% Defective	Number Tested	Number Failed	% Defective	Number Tested	Number Failed	% Defective
MOS	17,845	5	0.030	20,281	31	0.15	18,612	1,516	8.2
DTL	29,034	111	0.38	59,034	14	0.024	57,174	514	0.90
RTL	3,354	24	0.72	-	-	-	-	-	-
HTTL	33,808	338	1.0	5,348	0	0.0	5,213	52	1.0
LTTL	24,988	473	1.9	22,052	15	0.068	21,784	201	0.92
STTL	2,030	3	0.15	1,844	0	0.0	1,844	24	1.3
LSTTL	-	-	-	25	0	0.0	25	0	0.0
TTL	<u>404,022</u>	<u>11,239</u>	<u>2.8</u>	<u>175,538</u>	<u>47</u>	<u>0.030</u>	<u>169,588</u>	<u>1,972</u>	<u>1.2</u>
TOTALS	515,081	12,193	2.4	284,122	107	0.050	274,240	4,247	1.6

TABLE 26: ENVIRONMENTAL/SCREENING DATA
STRESS TEST SUMMARIES BY PACKAGE TYPE

Package Type	Category A			Category B			Category C		
	Number Tested	Number Failed	% Defective	Number Tested	Number Failed	% Defective	Number Tested	Number Failed	% Defective
HDIP	27,494	386	1.4	25,340	29	0.11	23,280	467	2.0
PDIP	429,896	10,722	2.5	139,033	54	0.040	134,360	2,000	1.5
HFPK	17,106	84	0.49	69,245	24	0.035	66,096	561	0.85
N.R.	<u>42,585</u>	<u>1,001</u>	<u>2.4</u>	<u>50,504</u>	<u>0</u>	<u>0.0</u>	<u>50,504</u>	<u>1,219</u>	<u>2.4</u>
TOTALS	515,081	12,193	2.4	284,122	107	0.050	274,240	4,247	1.6

TABLE 27: ENVIRONMENTAL/SCREENING DATA
STRESS TEST SUMMARIES
BY NUMBER OF STRESS TESTS PER SEQUENCE

Number Stresses Per Sequence	Category A			Category B			Category C		
	Number Tested	Number Failed	% Defective	Number Tested	Number Failed	% Defective	Number Tested	Number Failed	% Defective
0	433,347	11,155	2.6	-	-	-	-	-	-
1	70,703	1,015	1.4	258,042	23	0.0089	254,643	3,704	1.5
2	10,410	23	0.22	17,490	52	0.30	16,046	389	2.4

TABLE 27: ENVIRONMENTAL/SCREENING DATA (Cont'd)

STRESS TEST SUMMARIES

BY NUMBER OF STRESS TESTS PER SEQUENCE

Number Stresses Per Sequence	Category A			Category B			Category C		
	Number Tested	Number Failed	% Defective	Number Tested	Number Failed	% Defective	Number Tested	Number Failed	% Defective
3	515	0	0.0	8,259	24	0.29	3,370	153	4.6
4	-	-	-	180	8	4.4	30	0	0.0
6	-	-	-	20	0	0.0	20	1	5.0
7	<u>106</u>	<u>0</u>	<u>0.0</u>	<u>131</u>	<u>0</u>	<u>0.0</u>	<u>131</u>	<u>0</u>	<u>0.0</u>
TOTALS	515,081	12,193	2.4	284,122	107	0.050	274,240	4,247	1.6

TABLE 28: ENVIRONMENTAL/SCREENING DATA
ZERO STRESS TESTS

Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
Fine Leak	He, 5.E-8, 60 Min, 30 Min	NOS	HDIP	16	0	0.0
Hermeticity	260°C, 95%, 5 Sec	HTTL	N.R.	52	0	0.0
Hermeticity	260°C, 95%, 5 Sec	L TTL	HDIP	52	0	0.0
Hermeticity	260°C, 95%, 5 Sec	L TTL	HFPK	71	1	1.4
Hermeticity	260°C, 95%, 5 Sec	TTL	HDIP	408	2	0.49
Hermeticity	260°C, 95%, 5 Sec	TTL	HFPK	332	2	0.60
Ht Cont	100°C	TTL	PDIP	4,860	0	0.0
Stat EM	25°C/125°C/-55°C	L TTL	HDIP	13	0	0.0
Vis Insp	10X, 20X	TTL	HDIP	37	0	0.0
Vis Insp	N.R.	TTL	PDIP	13,521	2,470	22.0
Vis Insp	10X, 20X	TTL	HFPK	2	0	0.0
Vis Insp EM	3X, 20X N.R.	DTL	HFPK	3,840 3,840	0 20	0.0 0.52
Vis Insp S&F EN Ht Cont	N.B. 25°C 100°C	DTL	PDIP	25,194 25,194 25,194	0 88 3	0.0 0.35 0.012
Vis Insp S&F EN Ht Cont	N.B. 25°C 100°C	RTL	PDIP	3,354 3,354 3,354	0 20 4	0.0 0.60 0.12
Vis Insp S&F EN Ht Cont	N.B. 25°C 100°C	HTTL	PDIP	29,588 29,588 29,588	0 220 94	0.0 0.74 0.32
Vis Insp S&F EN Ht Cont	N.B. 25°C 100°C	L TTL	PDIP	1,813 1,813 1,813	0 23 0	0.0 1.3 0.0
Vis Insp S&F EN Ht Cont	N.B. 25°C 100°C	STTL	PDIP	215 215 215	0 1 0	0.0 0.47 0.0

TABLE 28: ENVIRONMENTAL/SCREENING DATA
ZERO STRESS TESTS (Cont'd)

Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
Vis Insp	N.R.	TTL	PDIP	318,803	3,244	1.0
SfF CM	25°C			318,803	3,840	1.2
1% Cont	100°C			318,803	199	0.062
X-Ray	N.R.	HTTL	HDIP	1,207	0	0.0
EM	N.R.			1,207	21	1.7
X-Ray	N.R.	HTTL	HFPK	2,010	0	0.0
EM	N.R.			2,010	0	0.0
X-Ray	N.R.	LTTL	HDIP	1,581	0	0.0
EM	N.R.			1,581	30	1.9
X-Ray	N.R.	STTL	HDIP	492	0	0.0
EM	N.R.			492	2	0.41
X-Ray	N.R.	TTL	HDIP	13,186	0	0.0
EM	N.R.			13,186	188	1.4
X-Ray	N.R.	TTL	PDIP	6,925	0	0.0
EM	N.R.			6,925	1	0.014
X-Ray	N.R.	TTL	HFPK	940	0	0.0
EM	N.R.			940	42	4.5
X-Ray	N.R.	HTTL	HDIP	85	0	0.0
EM	N.R.			85	0	0.0
X-Ray	N.R.	LTTL	HDIP	85	3	3.5
EM	N.R.					
X-Ray	N.R.	TTL	HDIP	1,485	6	0.40
EM	N.R.			1,479	0	0.0
X-Ray	N.R.			1,479	40	2.7
EM	N.R.					
X-Ray	N.R.	TTL	HDIP	3,265	16	0.49
EM	N.R.			3,249	0	0.0
X-Ray	N.R.			3,249	75	2.3
EM	N.R.					

TABLE 29: ENVIRONMENTAL/SCREENING DATA
SINGLE STRESS TESTS-RESULTS BY PACKAGE TYPE
HERMETIC DUAL-IN-LINE PACKAGE

Single Stress Test Type	Number Tested	Number Failed	% Defective
Bond Strength	297	0	0.0
Lead Fatigue	548	1	0.18
Mech Shock	50	1	2.0
Salt Atmos	743	3	0.40
Solderability	180	0	0.0
Temp Cycle	50	0	0.0
Thermal Shock	650	1	0.15
VBVRFQ	242	0	0.0

TABLE 30: ENVIRONMENTAL/SCREENING DATA
SINGLE STRESS TESTS-RESULTS BY PACKAGE TYPE
PLASTIC DUAL-IN-LINE PACKAGE

Single Stress Test Type	Number Tested	Number Failed	% Defective
High Pressure	20	0	0.0
Lead Fatigue	14	0	0.0
Moisture Res	245	8	3.3
Solderability	12	3	25.0
Temp Cycle*	32,923	455	1.4
Thermal Shock	194	3	1.5

*The stresses experienced by the majority of these devices are represented by temperature extremes of -55°C/150°C for 10 cycles, 15 min/15 min dwell time.

TABLE 31: ENVIRONMENTAL/SCREENING DATA
SINGLE STRESS TESTS-RESULTS BY PACKAGE TYPE
HERMETIC FLAT PACKAGE

Single Stress Test Type	Number Tested	Number Failed	% Defective
Bond Strength	215	3	1.4
Constant Acc	5	0	0.0
Lead Fatigue	715	7	0.98
Mech Shock	1,565	0	0.0
Salt Atmos	712	14	2.0
Solderability	249	1	0.40
Temp Cycle	8	0	0.0
Thermal Shock	191	1	0.52
VBVRFQ	267	1	0.37

TABLE 32: ENVIRONMENTAL/SCREENING DATA
SINGLE STRESS TESTS

Test Type	Stress Level	Screen Class	Package	Number Tested	Number Failed	% Defective
Bond Strength	N.R.	B-1	HDIP	22	0	0.0
Bond Strength	1 GMS, 4 BDS	B-1	HDIP	18	0	0.0
Bond Strength	1 GMS, 52 BDS	B-1	HDIP	10	0	0.0
Bond Strength	1 GMS, 52 BDS	B-1	HFPK	10	0	0.0
Bond Strength	1 GMS, 166 BDS	B-1	HDIP	10	0	0.0
Vis Insp Bond Strength	N.R.	B-1	HFPK	22 22	0 0	0.0 0.0
Vis Insp Bond Strength	10X, 20X	B-1	HDIP	5 5	0 0	0.0 0.0
Vis Insp Bond Strength	10X, 20X 1 GMS, 4 BDS	B-1	HDIP	34 34	0 0	0.0 0.0
Vis Insp Bond Strength	10X, 20X 1 GMS, 8 BDS	B-1	HFPK	40 40	0 0	0.0 0.0
Vis Insp Bond Strength	10X, 20X 1 GMS, 8 BDS	B-1	HDIP	52 52	0 0	0.0 0.0
Vis Insp Bond Strength	10X, 20X 1 GMS, 8 BDS	B-1	HFPK	9 9	0 0	0.0 0.0
Vis Insp Bond Strength	10X, 20X 1 GMS, 22 BDS	B-1	HDIP	32 20	0 0	0.0 0.0
Vis Insp Bond Strength	10X, 20X 1 GMS, 22 BDS	B-1	HFPK	22 10	3 0	14. 0.0
Vis Insp Bond Strength	10X, 20X 1 GMS, 45 BDS	A-1	HFPK	55 10	0 0	0.0 0.0
Vis Insp Bond Strength	10X, 20X 1 GMS, 68 BDS	B-1	HFPK	17 17	0 0	0.0 0.0
Vis Insp Bond Strength	10X, 20X 1 GMS, 152 BDS	B-1	HDIP	25 25	0 0	0.0 0.0
Vis Insp Bond Strength	10X, 20X 1 GMS, 166 BDS	B-1	HDIP	81 81	0 0	0.0 0.0
Vis Insp Bond Strength	10X, 20X 1 GMS, 166 BDS	B-1	HFPK	40 40	0 0	0.0 0.0
Vis Insp Bond Strength	45X 2.5 GMS, 129 BDS	A-1	HDIP	55 10	0 0	0.0 0.0
Vis Insp Bond Strength	80X 1 GMS, 129 BDS	A-1	HFPK	55 55	0 0	0.0 0.0

TABLE 32: ENVIRONMENTAL/SCREENING DATA
SINGLE STRESS TESTS (Cont'd)

Test Type	Stress Level	Screen Class	Package	Number Tested	Number Failed	% Defective
Cnst Acc	30 Kg. 3 Axes, 1 Min E	N.R.	HFPK	5	0	0.0
High Pressure	15 PSIG, Steam	N	PDIP	20	0	0.0
Lead Fatigue	8 oz, 90 Deg, 3 Arcs	B-1	HDIP	52	0	0.0
Lead Fatigue	8 oz, 90 Deg, 3 Arcs	B-1	HFPK	52	0	0.0
Lead Fatigue	8 oz, 90 Deg, 6 Arcs	N	PDIP	14	0	0.0
Lead Fatigue	16 oz, 90 Deg, 6 Arcs	B-1	HDIP	16	0	0.0
Lead Fatigue	3 oz, 90 Deg, 3 Arcs	A-1	HFPK	55	0	0.0
Fine Leak	3.E-8, 60 Min, 10 Min			55	0	0.0
Gross Leak	Fluor, 125° C, 3X, 75 PSIG			55	0	0.0
Lead Fatigue	3 oz, 90 Deg, 3 Arcs	A-1	HFPK	55	0	0.0
Fine Leak	3.E-8, 180 Min, 7 Min			55	0	0.0
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			55	0	0.0
Lead Fatigue	8 oz, 90 Deg, 3 Arcs	A-1	HDIP	55	0	0.0
Fine Leak	3.E-8, 60 Min, 10 Min			55	0	0.0
Gross Leak	Fluor, 125° C, 3X, 75 PSIG			55	0	0.0
Lead Fatigue	8 oz, 90 Deg, 3 Arcs	B-1	HDIP	90	0	0.0
Fine Leak	5.E-8, 60 Min, 30 Min			90	0	0.0
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			90	0	0.0
Lead Fatigue	8 oz, 90 Deg, 3 Arcs	B-1	HFPK	147	0	0.0
Fine Leak	5.E-8, 60 Min, 30 Min			147	1	0.68
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			147	4	2.7
Lead Fatigue	8 oz, 90 Deg, 3 Arcs	B-1	HDIP	22	0	0.0
Fine Leak	5.E-8, 70 Min, 10 Min			22	0	0.0
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			22	0	0.0
Lead Fatigue	8 oz, 90 Deg, 3 Arcs	B-1	HFPK	22	0	0.0
Fine Leak	5.E-8, 70 Min, 20 Min			22	0	0.0
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			22	0	0.0
Lead Fatigue	8 oz, 90 Deg, 3 Arcs	B-1	HDIP	313	0	0.0
Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm			313	0	0.0
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			313	1	0.32
Lead Fatigue	8 oz, 90 Deg, 3 Arcs	B-1	HFPK	180	0	0.0
Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm			180	1	0.56
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			179	1	0.56
Fine Leak	5.E-8, 60 Min, 30 Min	N	HFPK	201	0	0.0
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			201	0	0.0
Lead Fatigue	8 oz, 90 Deg, 3 Arcs			201	0	0.0
Fine Leak	5.E-8, 60 Min, 20 Min			201	0	0.0
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			201	0	0.0

TABLE 32: ENVIRONMENTAL/SCREENING DATA
SINGLE STRESS TESTS (Cont'd)

Test Type	Stress Level	Screen Class	Package	Number Tested	Number Failed	% Defective
Mech Shock	3 Kg, 0.5 msec, 6 Axes, 5 Blos	N.R.	HFPK	5	0	0.0
Mech Shock	1.5 Kg, 0.5 msec, 2 Axes, 5 Blos	B-1	HDIP	50	0	0.0
Dynamic EM	30 Kg, 3 Axes, 1 Min E			50	0	0.0
SDF EM				50	1	2.0
Mech Shock	1.5 Kg, 0.5 msec, 4 Axes, 5 Blos	N.G.	HFPK	1,650	0	0.0
Stat EM	25° C			1,650	0	0.0
Moisture Res	25° C, 65° C, 90% RH	N	PDIP	16	0	0.0
Moisture Res	85° C, 85% RH	N	PDIP	16	0	0.0
Moisture Res	25° C, 65° C, 90% RH	N	PDIP	107	0	0.0
EM	25° C			107	2	1.9
EM	100° C			105	3	2.9
Moisture Res	85° C, 85% RH	N	PDIP	108	0	0.0
EM	25° C			108	2	1.9
EM	100° C			106	1	0.94
Salt Atmos	35° C, 15 GMS, MSQ, 24 Hrs	B-1	HDIP	22	0	0.0
Salt Atmos	35° C, 25 GMS, MSQ, 24 Hrs	B-1	HDIP	582	3	0.52
Salt Atmos	35° C, 25 GMS, MSQ, 24 Hrs	B-1	HFPK	635	13	2.0
Salt Atmos	35° C, 27 GMS, MSQ, 24 Hrs	A-1	HDIP	84	0	0.0
Salt Atmos	35° C, 30 GMS, MSQ, 24 Hrs	A-1	HDIP	55	0	0.0
Salt Atmos	35° C, 30 GMS, MSQ, 24 Hrs	A-1	HFPK	55	1	1.8
Salt Atmos	35° C, 48 GMS, MSQ, 24 Hrs	B-1	HFPK	22	0	0.0
Solderability	260° C, 95%, 5 Sec	A-1	HDIP	82	0	0.0
Solderability	260° C, 95%, 5 Sec	A-1	HFPK	110	1	0.91
Solderability	260° C, 95%, 5 Sec	B-1	HDIP	76	0	0.0
Solderability	260° C, 95%, 5 Sec	B-1	HFPK	149	0	0.0
Solderability	260° C, 95%, 5 Sec	N	PDIP	12	3	25.
Temp Cycle		B-1	HDIP	50	0	0.0
Temp Cycle	0° C, 100° C, 50 cyc, 15/15 DT	N	PDIP	100	0	0.0
Temp Cycle	-65° C, 150° C, 10 cyc, 10/10 DT	N.R.	HFPK	8	0	0.0
Temp Cycle	-55° C, 150° C, 10 cyc, 15/15 DT	N	PDIP	32,697	0	0.0
EM	N.R.			32,697	454	1.4

TABLE 32: ENVIRONMENTAL/SCREENING DATA
SINGLE STRESS TESTS (Cont'd)

Test Type	Stress Level	Screen Class	Package	Number Tested	Number Failed	% Defective
Temp Cycle	0° C, 100° C, 10 cyc, 15/15 DT	N	PDIP	126	0	0.0
EM	25° C			126	1	0.79
EM	100° C			125	0	0.0
Therm Shock	-50° C, 175° C, 20 cyc, Liquid	C-1	HDIP	15	0	0.0
Therm Shock	-65° C, 150° C, 15 cyc, Liquid	A-1	HDIP	197	0	0.0
Therm Shock	-65° C, 150° C, 15 cyc, Liquid	A-1	HFPK	115	0	0.0
Therm Shock	0° C, 100° C, 15 cyc, Liquid	N	PDIP	194	0	0.0
EM	25° C			194	1	0.52
EM	100° C			193	2	1.0
Therm Shock	-55° C, 125° C, 15 cyc, Liquid	B-1	HDIP	159	0	0.0
Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm			159	0	0.0
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			159	0	0.0
Therm Shock	-55° C, 125° C, 15 cyc, Liquid	B-1	HFPK	41	0	0.0
Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm			41	1	2.4
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			41	0	0.0
Therm Shock	-65° C, 150° C, 15 cyc	B-1	HDIP	62	0	0.0
Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm			62	1	1.6
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			62	0	0.0
Therm Shock	-65° C, 150° C, 15 cyc, Liquid	B-1	HFPK	35	0	0.0
Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm			35	0	0.0
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			35	0	0.0
Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm	B-1	HDIP	217	0	0.0
Therm Shock	-55° C, 125° C, 15 cyc, Liquid			217	0	0.0
Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm			217	0	0.0
VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes	A-1	HDIP	142	0	0.0
VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes	A-1	HFPK	165	0	0.0
VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes	B-1	HDIP	13	0	0.0
Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm			13	0	0.0
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			13	0	0.0
Stat EM	25° C, 125° C, -55° C			13	0	0.0
VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes	B-1	HFPK	65	0	0.0
Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm			65	1	1.5
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			65	0	0.0
Stat EM	25° C, 125° C, -55° C			65	0	0.0
VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes	B-1	HDIP	65	0	0.0
Stat EM	25° C, 125° C, -55° C			65	0	0.0
VBVRFQ	20 Hz, 2 KHz, 20G, 3 Axes	B-1	HFPK	37	0	0.0
Stat EM	25° C, 125° C, -55° C			37	0	0.0

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
2	A B	S & D EM	25°C	CMOS	HDIP	125	1	0.80
		Autocl	15 PSIG, Steam, 15 Hrs			124	0	0.0
		S&D EM	25°C			124	0	0.81
		Thrm Shk	0°C/100°C, 5 Cyc, Liquid			123	0	0.0
		S&D EM	25°C	CMOS	PUIP	123	0	0.0
		S&D EM	25°C			125	4	3.2
		Autocl	15 PSIG, Steam, 15 Hrs			121	0	0.0
		S&D EM	25°C			121	4	3.3
		Thrm Shk	0°C/100°C, 5 Cyc, Liquid	TTL	HDIP	117	0	0.0
		S&D EM	25°C			117	0	0.0
		S&D EM	25°C			125	0	0.0
		Autocl	15 PSIG, Steam, 15 Hrs			125	0	0.0
		S&D EM	25°C	TTL	PDIP	125	0	0.0
		Thrm Shk	0°C/100°C, 5 Cyc, Liquid			122	0	0.0
		S&D EM	25°C			122	0	0.0
		S&D EM	25°C			121	0	0.0
		Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 B10s	TTL	HDIP	38	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			38	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			38	0	0.0
		EM	N.R.			38	0	0.0
		Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 B10s	CMOS	HDIP	75	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			75	0	0.0
		Cnst Acc	20 Kg, 6 Axes, 1 Min			75	0	0.0
		Fine Leak	5-E-8, 60 Min, 10 Min			75	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 75 PSIG			75	0	0.0
		EM	25°C, 125°C, -55°C			75	0	0.0

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
3	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	CMOS	HFPK	55	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			55	0	0.0
		Cnst Acc	20 Kg, 6 Axes, 1 Min			55	0	0.0
		Fine Leak	5.E-8, 60 Min, 10 Min			55	0	0.0
		Gross Leak	Fluor, 125° C, 3X, 75 PSIG			55	0	0.0
3	B	EM	25° C, 125° C, -55° C			55	1	1.8
		Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	TTL	HDIP	76	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			76	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			76	0	0.0
		Fine Leak	5.E-8, 60 Min, 30 Min			76	1	1.3
3	B	Gross Leak	Fluor, 125° C, 3X, 90 PSIG			75	2	2.7
		EM	25° C			73	1	1.4
		Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	TTL	HFPK	42	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			42	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			42	0	0.0
3	B	Fine Leak	5.E-8, 60 Min, 30 Min			42	0	0.0
		Gross Leak	Fluor, 125° C, 3X, 90 PSIG			42	0	0.0
		EM	N.R.			42	0	0.0
		Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	TTL	HDIP	34	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			34	0	0.0
3	B	Cnst Acc	30 Kg, 6 Axes, 1 Min			34	0	0.0
		Fine Leak	5.E-8, 70 Min, 30 Min			34	0	0.0
		Gross Leak	Fluor, 125° C, 3X, 90 PSIG			34	0	0.0
		EM	N.R.			34	0	0.0
		Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	TTL	HDIP	90	0	0.0
3	B	VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			90	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			90	1	1.1
		Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			90	1	1.1
		Gross Leak	Fluor, 125° C, 3X, 90 PSIG			90	0	0.0
		EM	25° C, 125° C, -55° C			89	0	0.0

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
3	B	Mech Shock VBVRFQ Cnst Acc Fine Leak Gross Leak EM	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos 20 Hz, 2 KHz, 20 G, 3 Axes 30 Kg, 6 Axes, 1 Min Radiis, 5-E-8, 12 Min, 5 Atmo Fluor, 125° C, 3X, 90 PSIG 25° C, 125° C, -55° C	TTL	HFPK	52	0	0.0
						52	0	0.0
						52	0	0.0
						52	0	0.0
						52	0	0.0
						52	0	0.0
3	B	Mech Shock VBVRFQ Cnst Acc Fine Leak Gross Leak EM	1.5 Kg, 0.6 msec, 6 Axes, 5 Blos 20 Hz, 2 KHz, 20 G, 3 Axes 30 Kg, 6 Axes, 1 Min 5-E-8, 60 Min, 5 Min Fluor, 125° C, 3X, 90 PSIG N.R.	TTL	HFPK	22	0	0.0
						22	0	0.0
						22	0	0.0
						22	0	0.0
						22	0	0.0
						22	0	0.0
3	B	Mech Shock VBVRFQ Cnst Acc Fine Leak Gross Leak SDF EM	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos 20 Hz, 2 KHz, 20 G, 3 Axes 30 Kg, 6 Axes, 1 Min 3-E-8, 180 Min, 7 Min Fluor, 125° C, 3X, 90 PSIG -55° C, 25° C, 125° C	CMOS	HFPK	75	0	0.0
						75	0	0.0
						75	0	0.0
						75	0	0.0
						75	0	0.0
						75	3	4.0
3	B	Mech Shock VBVRFQ Cnst Acc Fine Leak Gross Leak Visual Insp EM	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos 20 Hz, 2 KHz, 20 G, 3 Axes 30 Kg, 6 Axes, 1 Min Radiis, 5-E-8, 12 Min, 5 Atmo Fluor, 125° C, 3X, 90 PSIG 5X, 10X N.R.	TTL	HFPK	38	0	0.0
						38	0	0.0
						38	0	0.0
						38	0	0.0
						38	0	0.0
						38	0	0.0
3	B	Mech Shock VBVRFQ Cnst Acc Fine Leak Gross Leak Visual Insp Stat EM	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos 20 Hz, 2 KHz, 20 G, 3 Axes 30 Kg, 6 Axes, 1 Min Radiis, 5-E-8, 12 Min, 5 Atmo Fluor, 125° C, 3X, 90 PSIG N.R.	LTTL	HDPJ	52	0	0.0
						52	0	0.0
						52	0	0.0
						52	15	29.0
						52	1	1.9
						52	0	0.0
						52	0	0.0

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
3	B	Mech Shock VBVRFQ Cnst Acc S & F EM	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos 20 Hz, 2 KHz, 20 G, 3 Axes 30 Kg, 6 Axes, 1 Min 25° C, 125° C, -55° C	TTL	HDIP	76	0	0.0
	C					76	0	0.0
						76	0	0.0
						76	0	0.0
3	B	Mech Shock VBVRFQ Cnst Acc S & F EM	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos 20 Hz, 2 KHz, 20 G, 3 Axes 30 Kg, 6 Axes, 1 Min 25° C, 125° C, -55° C	TTL	HFPK	78	0	0.0
	C					78	0	0.0
						78	0	0.0
3	B	Mech Shock VBVRFQ Cnst Acc Stat EM	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos 20 Hz, 2 KHz, 20 G, 3 Axes 30 Kg, 6 Axes, 1 Min 25° C, 125° C, -55° C	TTL	HDIP	52	0	0.0
	C					52	0	0.0
						52	1	1.9
3	B	Mech Shock VBVRFQ Cnst Acc Stat EM	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos 20 Hz, 2 KHz, 20 G, 3 Axes 30 Kg, 6 Axes, 1 Min 25° C, 125° C, -55° C	TTL	HFPK	74	0	0.0
	C					74	0	0.0
						74	0	0.0
						74	0	0.0
3	B	Mech Shock VBVRFQ Cnst Acc Stat EM	5 Kg, 0.5 msec, 6 Axes, 5 Blos 20 Hz, 2 KHz, 50 G, 3 Axes 75 Kg, 6 Axes, 1 Min 25° C	LTTT	HFPK	35	0	0.0
	C					55	0	0.0
						55	1	1.8
						54	6	11.0
3	B	Mech Shock VBVRFQ Cnst Acc Stat EM	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos 20 Hz, 2 KHz, 20 G, 3 Axes 3 Kg, 6 Axes, 1 Min N.R. 25° C, 125° C, -55° C	TTL	HDIP	102	0	0.0
	C					102	0	0.0
						102	0	0.0
						102	0	0.0
						102	1	0.98
3	A	Fine Leak Gross Leak Stat EM	5.E-8, 60 Min, 30 Min Fluor, 125° C, 3X, 95 PSIG 25° C	HTTL	HFPK	175	0	0.0
	B	Mech Shock VBVRFQ Cnst Acc Stat EM	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos 20 Hz, 2 KHz, 50 G, 3 Axes 30 Kg, 6 Axes, 1 Min 25° C			175	0	0.0
	C					175	0	0.0
						175	0	0.0
						175	0	0.0
						175	2	1.1

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
3	A	Fine Leak	5.E-8, 60 Min, 30 Min	TTL	HFPK	21	0	0.0
		Gross Leak	Fluor, 125° C, 3X, 95 PSIG			21	0	0.0
	B	Stat EM	25° C			21	0	0.0
		Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos			21	0	0.0
	C	VBVRFQ	20 Hz, 2 KHz, 50 G, 3 Axes			21	0	0.0
Cnst Acc		30 Kg, 6 Axes, 1 Min	21	0	0.0			
Stat EM		25° C	21	0	0.0			
2	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	TTL	HDIP	22	0	0.0
	VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes	22			0	0.0	
3	B	Dynamic EM	75 Kg, 6 Axes, 1 Min	DTL	HFPK	22	0	0.0
		Mech Shock	1.5 Kg, 0.5 msec, 4 Axes, 5 Blos			1,560	0	0.0
		Stat EM	25° C			1,560	0	0.0
		Moisture Res	-10° C, 65° C, 98% RH			1,560	0	0.0
		Stat EM	25° C			1,560	0	0.0
3	A	Lead Fatigue	8 oz	LTTL	HFPK	1,560	0	0.0
		Fine Leak	He, 5.E-8			1,560	0	0.0
		Gross Leak	Fluor, 90° C, 90 PSIG			1,560	0	0.0
		Stat EM	25° C, 125° C, -55° C			27	0	0.0
		Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos			27	0	0.0
2	B	VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes	TTL	PDIP	27	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			27	0	0.0
		Stat EM	25° C, 125° C, -55° C			27	0	0.0
		Moisture Res	25° C, 65° C, 90% RH			105	0	0.0
		EM	25° C			105	2	1.9
2	C	EM	100° C	TTL	PDIP	103	3	2.9
		Moisture Res	25° C, 65° C, 90% RH			100	0	0.0
		EM	25° C			100	1	1.0
		EM	100° C			100	0	0.0
		EM	100° C			99	0	0.0

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
3	B	Moisture Res	85° C, 85% RH	TTL	PDIP	108	0	0.0
		EM	25° C			108	2	1.9
		EM	100° C			106	1	0.94
		Moisture Res	85° C, 85% RH			105	0	0.0
		EM	25° C			105	4	3.8
		EM	100° C			101	0	0.0
3	C	Moisture Res	85° C, 85% RH	PMOS	PDIP	101	0	0.0
		EM	25° C			101	0	0.0
		EM	100° C			101	0	0.0
		Solder Heat	230° C, 5 sec.			25	0	0.0
		Temp Cycle	-65° C, 150° C, 25 cyc			25	0	0.0
		Moisture Res	-10° C, 25° C, 98% RH			25	0	0.0
3	B	Solder Heat	230° C, 5 sec.	DTL	PDIP	175	1	0.57
		Temp Cycle	-65° C, 150° C, 25 cyc			175	4	2.3
		Moisture Res	-10° C, 25° C, 98% RH			175	0	0.0
3	B	Solder Heat	230° C, 5 sec.	HTTL	PDIP	35	0	0.0
		Temp Cycle	-65° C, 150° C, 25 cyc			35	0	0.0
		Moisture Res	-10° C, 25° C, 98% RH			35	0	0.0
3	B	Solder Heat	230° C, 5 sec.	TTL	PDIP	2,899	5	0.17
		Temp Cycle	-65° C, 150° C, 25 cyc			2,899	1	0.034
		Moisture Res	-10° C, 25° C, 98% RH			2,899	2	0.069
3	B	Solder Heat	230° C, 5 sec.	TTL	PDIP	18	0	0.0
		Temp Cycle	-65° C, 150° C, 25 cyc			18	0	0.0
		Moisture Res	-10° C, 25° C, 98% RH			18	0	0.0
4	B	Solder Heat	230° C, 5 sec.	DTL	PDIP	79	3	3.8
		Temp Cycle	-65° C, 150° C, 25 cyc			100	1	1.0
		Moisture Res	-10° C, 25° C, 98% RH			99	0	0.0
4	B	Solder Heat	230° C, 5 sec.	TTL	PDIP	100	3	3.0
		Temp Cycle	-65° C, 150° C, 25 cyc			36	0	0.0
		Moisture Res	-10° C, 25° C, 98% RH			50	1	2.0
4	B	Solder Heat	230° C, 5 sec.	TTL	PDIP	49	0	0.0
		Temp Cycle	-65° C, 150° C, 25 cyc			49	0	0.0
		Moisture Res	-10° C, 25° C, 98% RH			49	0	0.0

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	$\hat{\lambda}$ Defective
1	B C	Temp Cycle Bake EM	-40° C, 125° C, 10 cycles 150° C N.R.	DTL	HFPK	52,204 52,204 52,204	0 0 408	0.0 0.0 0.78
1	B C	Temp Cycle Bake EM	-55° C, 85° C, 5 cyc, 10/10 DT 150° C, 100% N.R.	HTTL	PDIP	3,580 3,580 3,580	0 0 27	0.0 0.0 0.75
1	B C	Temp Cycle Bake EM	-55° C, 85° C, 5 cyc, 10/10 DT 150° C, 100% N.R.	L TTL	PDIP	1,439 1,439 1,439	0 0 17	0.0 0.0 1.2
1	B C	Temp Cycle Bake EM	-55° C, 85° C, 5 cyc, 10/10 DT 150° C, 100% N.R.	LSTTL	PDIP	25 25 25	0 0 0	0.0 0.0 0.0
1	B C	Temp Cycle Bake EM	-55° C, 85° C, 5 cyc, 10/10 DT 150° C, 100% N.R.	STTL	PDIP	521 521 521	0 0 11	0.0 0.0 2.1
1	B C	Temp Cycle Bake EM	-55° C, 85° C, 5 cyc, 10/10 DT 150° C, 100% N.R.	TTL	HDIP	15,890 15,890 15,890	0 0 154	0.0 0.0 0.97
1	B C	Temp Cycle Bake EM	-55° C, 85° C, 5 cyc, 10/10 DT 150° C, 100% N.R.	TTL	PDIP	66,533 66,533 66,533	0 0 801	0.0 0.0 1.2
1	B C	Temp Cycle Bake EM	-55° C, 85° C, 5 cyc, 10/10 DT 150° C, 100% N.R.	TTL	N.R.	7,971 7,971 7,971	0 0 31	0.0 0.0 0.39
3	B	Temp Cycle EM	0° C, 100° C, 10 cyc, 15/15 DT 25° C 100° C	TTL	PDIP	126 126 125	0 1 0	0.0 0.79 0.0
		Temp Cycle EM	0° C, 100° C, 10 cyc, 15/15 DT 25° C 100° C			125 125 125	0 0 0	0.0 0.0 0.0
		Temp Cycle EM	0° C, 100° C, 30 cyc, 15/15 DT 25° C 100° C			125 125 125	0 0 0	0.0 0.0 0.0

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
2	B	Temp Cycle S&F EM Lo Press S&F EM	-55°C, 125°C, 1000 cyc, 10/10 DT 25°C, 125°C 1.09T, 25°C 25°C, 125°C	CMOS	PDIP	100 100 100 100	0 0 0 0	0.0 0.0 0.0 0.0
2	B	Temp Cycle S&F EM Lo Press S&F EM	-55°C, 125°C, 1000 cyc, 10/10 DT 25°C, 125°C 1.09T, 25°C 25°C, 125°C	TTL	PDIP	200 200 200 200	0 0 0 0	0.0 0.0 0.0 0.0
2	B	Temp Cycle Temp Cycle	-65°C, 150°C, 25 cyc -65°C, 150°C, 25 cyc	DTL	PDIP	25 24	1 1	4.0 4.2
2	B	Temp Cycle Temp Cycle	-65°C, 125°C, 10 cyc, 15/15 DT -65°C, 150°C, 40 cyc, 15/15 DT	TTL	PDIP	222 222	0 0	0.0 0.0
3	B	Temp Cycle Therm Shock Moisture Res	-65°C, 125°C, 10 cyc, 15/15 DT 0°C, 100°C, 10 cyc, Liquid 85°C, 85% RH	TTL	PDIP	100 100 100	0 0 0	0.0 0.0 0.0
3	B	Temp Cycle Therm Shock Moisture Res EM EM	-65°C, 125°C, 10 cyc, 15/15 DT 0°C, 100°C, 10 cyc, Liquid 85°C, 85% RH 25°C 100°C	TTL	PDIP	125 125 125 125 120	0 0 0 5 0	0.0 0.0 0.0 4.0 0.0
2	B	Bake Temp Cycle Cnst Acc D&F EM	150°C -65°C, 150°C, 10 cyc, 10/10 DT 30 Kg, 1 Axis, 1 Min E 25°C	CMOS	PDIP	495 495 495 435	0 0 0 22	0.0 0.0 0.0 4.4
2	B	Bake Temp Cycle Cnst Acc D&F EM	150°C -65°C, 150°C, 10 cyc, 10/10 DT 30 Kg, 1 Axis, 1 Min E 25°C	TTL	PDIP	2,475 2,475 2,475 2,475	0 0 0 125	0.0 0.0 0.0 5.1

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
1	A B C	Bake Temp Cycle EM	150°C -55°C, 125°C, 10 cyc N.R.	CMOS	PDIP	10,404 10,404 10,403	0 0 284	0.0 0.0096 2.7
1	A B C	Bake Temp Cycle EM	150°C -55°C, 125°C, 10 cyc N.R.	CMOS	N.R.	6,580 6,580 6,580	0 0 1,178	0.0 0.0 18.0
2	A B C	Vis Insp Bake Temp Cyc Cnst Acc Fine Leak Gross Leak S&D EM	N.R. 150°C -65°C, 150°C, 10 cyc, 10/5 DT 30 Kg, 1 Axis, 1 Min E He, 5.E-7, 60 Min, 30 Min Fluor, 125°C, 3X, 9 PSIG 25°C	CMOS	HDIP	400 400 400 400 400 394 381	0 0 0 0 6 13 13	0.0 0.0 0.0 0.0 1.5 3.3 3.4
2	A B C	Vis Insp Bake Temp Cyc Cnst Acc Fine Leak Gross Leak	N.R. 150°C -65°C, 150°C, 10 cyc, 10/5 DT 30 Kg, 1 Axis, 1 Min E He, 5.E-7, 60 Min, 30 Min Fluor, 125°C, 3X, 9 PSIG	CMOS	PDIP	85 85 85 85 85	0 0 0 0 11	0.0 0.0 0.0 0.0 13.0
2	A B C	Visual Insp Bake Temp Cycle Cnst Acc Fine Leak Gross Leak EM	30X, 100X 150°C -65°C, 150°C, 10 cyc, 10/10 DT 30Kg, 6 Axes, 1 Min Radiis, 5.E-8, 12 Min, 5 Atmo Fluor, 125°C, 3X, 90 PSIG N.R.	LTTL	HFPK	8,884 8,868 8,868 8,868 8,867 8,807 8,746	16 0 1 1 60 61 690	0.18 0.0 0.0 0.0 0.68 0.69 7.9
2	A B C	Vis. Insp Bake Temp Cycle Cnst Acc Fine Leak Gross Leak S&D EM	N.R. 150°C -65°C, 150°C, 10 cyc, 10/5 DT 30Kg, 1 Axis, 1 Min E He, 5.E-7, 60 Min, 30 Min Fluor, 125°C, 3X, 9 PSIG 25°C	TTL	HDIP	200 198 198 198 198 198 198	2 0 0 0 0 0 1	1.0 0.0 0.0 0.0 0.0 0.0 0.51

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	Defective
2	A	Visual Insp	N.R.	TTL	PDIP	100	0	0.0
	B	Bake	150°C			100	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/5 DT			100	0	0.0
		Cnst Acc	100g, 1 Axis, 1 Min E			100	0	0.0
	C	Wt Cont	He, 5.E-7, 60 Min, 30 Min			100	0	0.0
1		Gross Leak	Fluor, 125°C, 3X, 9 PSIG			100	0	0.0
		S&D EM	25°C			100	0	0.0
	A	Visual Insp	10X, 20X	TTL	PDIP	196	0	0.0
		EM	N.R.			196	0	0.0
	B	Bake	200°C			196	0	0.0
1		Temp Cycle	-40°C, 125°C, 15 cyc, 10/10 DT			196	0	0.0
		EM	N.R.			196	0	0.0
		Ht Cont	100°C			196	1	0.51
		Visual Insp	N.R.			195	0	0.0
	A	Visual Insp	10X, 20X	TTL	PDIP	8,450	0	0.0
1		EM	N.R.			8,450	0	0.0
		Bake	200°C			8,450	0	0.0
		Temp Cycle	-40°C, 125°C, 15 cyc, 10/10 DT			8,450	0	0.0
		Ht Cont	100°C			8,450	13	0.15
	C	Functional EM	N.R.			8,437	40	0.47
1		Visual Insp	N.R.			7,997	0	0.0
	A	Visual Insp	N.R.	STTL	PDIP	800	0	0.0
		EM	N.R.			800	0	0.0
		Bake	200°C			800	0	0.0
	B	Temp Cycle	-40°C, 125°C, 15 cyc, 10/10 DT			800	0	0.0
1		Ht Cont	100°C			800	1	0.13
		Stat EM	N.R.			799	12	1.5
		Visual Insp	N.R.			787	0	0.0
	A	Visual Insp	10X, 20X	TTL	HDIP	2,000	0	0.0
		EM	N.R.			2,000	0	0.0
1		Bake	200°C			2,000	0	0.0
		Temp Cycle	-40°C, 125°C, 15 cyc, 10/10 DT			2,000	0	0.0
		Ht Cont	100°C			2,000	0	0.0
		Stat EM	N.R.			2,000	77	3.9
	C	Visual Insp	N.R.			1,923	0	0.0

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses per Sequence	Category	Test Type	Stress Level	Cp Type	Package	Number Tested	Number Failed	% Defective
1	A	Visual Insp EM	10X, 20X	TTL	PDIP	2,000	0	0.0
		Bake	N.R.			2,000	0	0.0
	B	Temp Cyc	200°C			2,000	0	0.0
	C	Ht Cont	-40°C, 125°C, 15 cyc, 10/10 DT			2,000	0	0.0
		Stat EM	100°C			2,000	12	0.60
		Visual Insp	N.R.			1,980	31	1.6
			N.R.			1,959	0	0.0
1	A	Visual Insp EM	N.R.	STTL	PDIP	523	0	0.0
		Bake	N.R.			523	0	0.0
	B	Temp Cycle	200°C			523	0	0.0
	C	Ht Cont	-40°C, 125°C, 15 cyc, 10/10 DT			523	0	0.0
		Visual Insp	100°C			523	0	0.0
			N.R.			523	0	0.0
1	A	Visual Insp EM	N.R.	TTL	PDIP	264	0	0.0
	B	Temp Cyc	N.R.			264	1	0.38
	C	Visual Insp	N.R.			264	0	0.0
			N.R.			264	0	0.0
1	A	Visual Insp Fine Leak	N.R.	LTTL	N.R.	10,894	0	0.0
		Gross Leak	N.R.			10,894	0	0.0
	B	EM	N.R.			10,894	357	3.3
	C	Temp Cyc	N.R.			10,894	0	0.0
		Visual Insp	N.R.			10,894	0	0.0
1	A	Visual Insp Fine Leak	N.R.	TTL	N.R.	24,560	10	0.041
		Gross Leak	N.R.			24,560	33	0.13
	B	EM	N.R.			24,560	22	0.090
	C	Temp Cyc	N.R.			24,560	496	2.0
		Visual Insp	N.R.			24,560	10	0.0
			N.R.			24,560	0	0.0
1	A	Visual Insp Fine Leak	N.R.	TTL	N.R.	499	0	0.0
		Gross Leak	N.R.			499	17	3.4
	B	EM	N.R.			499	6	1.2
	C	Temp Cyc	N.R.			499	70	14.0
		Visual Insp	N.R.			499	0	0.0

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
1	B C	Temp Cyc Visual Insp X-Ray	N.R. N.R. N.R.			499 499 499	0 1 9	0.0 0.20 1.8
2	B	Therm Shock EM EM	0°C, 100°C, 15 cyc, Liquid 25°C 100°C	TTL	PDIF	194 194 193	0 1 1	0.0 0.52 0.52
	C	Therm Shock EM EM	-65°C, 150°C, 15 cyc, Liquid 25°C 100°C			152 192 191	0 1 0	0.0 0.52 0.0
3	B	Therm Shock Fine Leak Gross Leak Temp Cycle Moisture Res Fine Leak Gross Leak Stat EM	-55°C, 125°C, 15 cyc, Liquid Radi, 5.E-8, 12 Min, 5 Atm Fluor, 125°C, 3X, 90 PSIG -65°C, 150°C, 10 cyc, 10/10 DT -10°C, 65°C, 98% RH Radi, 5.E-8, 12 Min, 5 Atm Fluor, 125°C, 3X, 90 PSIG 25°C, 125°C, -55°C	TTL	HDIP	38 38 38 38 38 38 38 38	0 0 0 0 0 0 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
2	B	Therm Shock Fine Leak Gross Leak VBVRFQ	-65°C, 150°C, 15 cyc, Liquid Radi, 5.E-8, 12 Min, 5 Atm Fluor, 125°C, 3X, 90 PSIG 20 Hz, 2 KHz, 20 G, 3 Axes	HTTL	HDIP	10 10 10 10	0 0 0 0	0.0 0.0 0.0 0.0
2	B	Therm Shock Fine Leak Gross Leak VBVRFQ	-65°C, 150°C, 15 cyc, Liquid Radi, 5.E-8, 12 Min, 5 Atm Fluor, 125°C, 3X, 90 PSIG 20 Hz, 2 KHz, 20 G, 3 Axes	TTL	HDIP	52 52 52 51	0 1 0 0	0.0 1.9 0.0 0.0
2	B	Therm Shock Fine Leak Gross Leak VBVRFQ	-65°C, 150°C, 15 cyc, Liquid Radi, 5.E-8, 12 Min, 5 Atm Fluor, 125°C, 3X, 90 PSIG 20 Hz, 2 KHz, 20 G, 3 Axes	TTL	HFPK	35 35 35 35	0 0 0 0	0.0 0.0 0.0 0.0

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	Defective
2	B	Therm Shock Fine Leak Gross Leak VIBRFQ EM	-55°C, 125°C, 15 cyc, Liquid Radi, 5.E-8, 12 Min, 5 Atmo Fluor, 125°C, 3X, 90 PSIG 20 Hz, 2 KHz, 20 G, 3 Axes N.R.	L TTL	HDIP	7 7 7 7 7	0 0 0 0 0	0.0 0.0 0.0 0.0 0.0
2	B	Therm Shock Fine Leak Gross Leak VIBRFQ EM	-55°C, 125°C, 15 cyc, Liquid Radi, 5.E-8, 12 Min, 5 Atmo Fluor, 125°C, 3X, 90 PSIG 20 Hz, 2 KHz, 20 G, 3 Axes N.R.	TTL	HDIP	38 38 38 38	0 0 0 0	0.0 0.0 0.0 0.0
2	B	Therm Shock Fine Leak Gross Leak VIBRFQ Stat EM	-55°C, 125°C, 15 cyc, Liquid Radi, 5.E-8, 12 Min, 5 Atmo Fluor, 125°C, 3X, 90 PSIG 20 Hz, 2 KHz, 20 G, 3 Axes 25°C, 125°C, -55°C	TTL	HDIP	76 76 76 76 75	0 0 0 1 1	0.0 0.0 0.0 1.3 1.3
2	B	Therm Shock Fine Leak Gross Leak VIBRFQ Stat EM	-55°C, 125°C, 15 cyc, Liquid Radi, 5.E-8, 12 Min, 5 Atmo Fluor, 125°C, 3X, 90 PSIG 20 Hz, 2 KHz, 20 G, 3 Axes 25°C, 125°C, -55°C	TTL	HDIP	41 41 40 40 37	0 1 0 3 0	0.0 2.4 0.0 7.5 0.0
2	B	Therm Shock S&F EM Moisture Res S&F EM	-65°C, 150°C, 15 cyc, Liquid 25°C, 125°C -10°C, 65°C, 98% RH 25°C, 125°C	CHDS	PDIP	100 100 100 100	0 0 0 4	0.0 0.0 0.0 4.0
2	B	Therm Shock S&F EM Moisture Res S&F EM	-65°C, 150°C, 15 cyc, Liquid 25°C, 125°C -10°C, 65°C, 98% RH 25°C, 125°C	TTL	PDIP	200 200 200 200	0 0 0 1	0.0 0.0 0.0 0.50

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
7	B	Therm Shock	-55°C, 125°C, 15 cyc			25	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc			25	0	0.0
		Moisture Res	85°C, 125°C, 98% RH			25	0	0.0
		Dynamic EM	N.R.			25	0	0.0
		Solderability	260°C			25	0	0.0
		Terminal Str	N.R.			25	0	0.0
		VBRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			25	0	0.0
3	C	Lead Fatigue	8 oz, 90 Deg, 3 Arcs			25	0	0.0
		Visual Insp	N.R.			25	0	0.0
		Hermeticity	N.P.			25	0	0.0
		Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	52	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			52	0	0.0
		Fine Leak	He, 5.E-8, 60 Min, 30 Min			52	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			52	0	0.0
3	C	Moisture Res	-10°C, 65°C, 98% RH			52	0	0.0
		Stat EM	25°C, 125°C, -55°C			52	0	0.0
		Therm Shock	-55°C, 125°C, 15 cyc, Liquid	HTTL	HPK	57	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			57	0	0.0
		Fine Leak	He, 5.E-8, 60 Min, 30 Min			57	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			57	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			57	0	0.0
3	B	Stat EM	25°C, 125°C, -55°C			57	0	0.0
		Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HPK	138	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			138	0	0.0
		Fine Leak	5.E-8, 60 Min, 30 Min			138	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			138	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			138	0	0.0
		Stat EM	25°C, 125°C, -55°C			138	0	0.0

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
2	B	Therm Shock Temp Cycle	-55°C, 125°C, 15 cyc, Liquid	TTL	HFPK	8	0	0.0
	C	Fine Leak	-65°C, 150°C, 10 cyc, 10/10 DT			8	0	0.0
		Gross Leak	5.E-8, 60 Min, 30 Min			8	0	0.0
		Stat EM	Fluor, 125°C, 3X, 90 PSIG			8	0	0.0
			25°C, 125°C, -55°C			8	0	0.0
3	D	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	LTTL	HFPK	55	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			55	0	0.0
		Mech Shock	1.5 Kg, 0.5 msec, 5 Axes, 5 Blows			55	0	0.0
	C	Stat EM	25°C			55	0	0.0
4	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	22	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			22	0	0.0
		Moisture Res	-10°C, 65°C, 76% RH			22	0	0.0
		Fine Leak	Radius, 5.E-8, 12 Min, 5 Atmo			22	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			22	0	0.0
		EM	N.R.			22	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			22	0	0.0
	C	Fine Leak	Radius, 5.E-8, 12 Min, 5 Atmo			22	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			22	0	0.0
3	B	Therm Shock	-65°C, 150°C, 15 cyc, Liquid	CMOS	HDIP	118	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			118	0	0.0
		Moist	-10°C, 65°C, 98% RH			118	0	0.0
	C	Fine Leak	3.E-8, 125°C, 3X, 75 PSIG			118	1	0.85
		Gross Leak	Fluor, 125°C, 3X, 75 PSIG			118	0	0.0
		EM	25°C, 125°C, -55°C			117	0	0.0
3	B	Therm Shock	-65°C, 150°C, 15 cyc, Liquid	CMOS	HFPK	55	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			55	0	0.0
		Moist	-10°C, 65°C, 98% RH			55	0	0.0
	C	Fine Leak	3.E-8, 60 Min, 10 Min			55	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 75 PSIG			55	0	0.0
		EM	25°C, 125°C, -55°C			55	1	1.8
3	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	150	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			150	0	0.0
		Moist	-10°C, 65°C, 98% RH			150	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 30 Min			150	1	0.67
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			150	0	0.0
		EM	N.R.			150	0	0.0

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
3	B	Therm Shock Temp Cycle	-55°C, 150°C, 15 cyc, Liquid	TTL	HFPK	52	0	0.0
		Moist	-65°C, 150°C, 10 cyc, 10/10 DT			52	0	0.0
	C	Fine Leak	-10°C, 65°C, 98% RH			52	1	1.0
		Gross Leak	Radis, 5.E-8, 12 Min, 5 Atmo			52	0	0.0
		EM	Fluor, 125°C, 3X, 90 PSIG 25°C, 125°C, -55°C			51	0	0.0
3	B	Therm Shock Temp Cycle	-55°C, 125°C, 15 cyc, Liquid	TTL	HFPK	42	0	0.0
		Moist	-65°C, 150°C, 10 cyc, 10/10 DT			42	0	0.0
	C	Fine Leak	-10°C, 65°C, 98% RH			42	0	0.0
		Gross Leak	5.E-8, 60 Min, 30 Min			42	0	0.0
			Fluor, 125°C, 3X, 90 PSIG			42	1	2.4
3	B	Therm Shock Temp Cycle	-55°C, 125°C, 15 cyc, Liquid	TTL	HFPK	22	0	0.0
		Moist	-65°C, 150°C, 10 cyc, 10/10 DT			22	0	0.0
	C	Fine Leak	-10°C, 65°C, 98% RH			22	0	0.0
		Gross Leak	5.E-8, 65 Min, 10 Min			22	0	0.0
		EM	Fluor, 125°C, 3X, 90 PSIG N.R.			22	0	0.0
3	B	Therm Shock Temp Cycle	-55°C, 125°C, 15 cyc, Liquid	TTL	HFPK	45	0	0.0
		Moist	-65°C, 150°C, 10 cyc, 10/10 DT			45	0	0.0
	C	Fine Leak	-10°C, 65°C, 98% RH			45	0	0.0
		Gross Leak	N.R.			45	0	0.0
		EM	N.R.			45	1	2.2
3	B	Therm Shock Temp Cycle	-55°C, 125°C, 15 cyc, Liquid	CMOS	HFPK	75	0	0.0
		Moist	-65°C, 150°C, 10 cyc, 10/10 DT			75	0	0.0
	C	Fine Leak	-10°C, 65°C, 98% RH			75	0	0.0
		Gross Leak	3.E-8, 180 Min, 7 Min			75	0	0.0
		SDF EM	Fluor, 125°C, 3X, 90 PSIG 25°C, 125°C, -55°C			75	1	1.3
3	B	Therm Shock Temp Cycle	-55°C, 125°C, 15 cyc, Liquid	LTTL	HDIP	41	0	0.0
		Moist	-65°C, 150°C, 10 cyc, 10/10 DT			41	0	0.0
	C	Fine Leak	-10°C, 65°C, 98% RH			41	0	0.0
		Gross Leak	Radis, 5.E-8, 12 Min, 5 Atmo			41	1	2.4
		Stat EM	Fluor, 125°C, 3X, 90 PSIG 25°C, 125°C, -55°C			41	0	0.0

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
3	B	Therm Shock Temp Cycle Moisture Res Fine Leak Gross Leak Stat EM	-55°C, 125°C, 15 cyc, Liquid -65°C, 150°C, 10 cyc, 10/10 DT -10°C, 65°C, 98% RH Radiis, 5.E-8, 12 Min, 5 Atmo Fluor, 125°C, 3X, 90 PSIG 25°C, 125°C, -55°C	TTL	HDIP	52	0	0.0
	C					52	0	0.0
						52	0	0.0
						52	0	0.0
						52	0	0.0
						52	0	0.0
3	B	Therm Shock Temp Cycle Moisture Res Fine Leak Gross Leak Stat EM	-55°C, 125°C, 15 cyc, Liquid -65°C, 150°C, 10 cyc, 10/10 DT -10°C, 65°C, 98% RH Radiis, 5.E-8, 12 Min, 5 Atmo Fluor, 125°C, 3X, 90 PSIG 25°C, 125°C, -55°C	TTL	HFPK	38	0	0.0
	C					38	0	0.0
						38	0	0.0
						38	0	0.0
						38	0	0.0
						38	0	0.0
						38	0	0.0
3	B	Therm Shock Temp Cycle Moisture Res Fine Leak Gross Leak Stat EM Visual Insp	-55°C, 125°C, 15 cyc, Liquid -65°C, 150°C, 10 cyc, 10/10 DT -10°C, 65°C, 98% RH Radiis, 5.E-8, 12 Min, 5 Atmo Fluor, 125°C, 3X, 90 PSIG 25°C, 125°C, -55°C N.R.	LTL	HDIP	52	0	0.0
	C					52	0	0.0
						52	0	0.0
						52	0	0.0
						52	0	0.0
						52	0	0.0
						52	0	0.0
						52	40	77.0
3	B	Therm Shock Temp Cycle Moisture Res Fine Leak Gross Leak Stat EM	-55°C, 125°C, 15 cyc, Liquid -65°C, 150°C, 10 cyc, 10/10 DT -10°C, 65°C, 98% RH Radiis, 5.E-8, 12 Min, 5 Atmo Fluor, 125°C, 3X, 90 PSIG 25°C, 125°C, -55°C	TTL	HDIP	52	0	0.0
	C					52	0	0.0
						52	0	0.0
						52	0	0.0
						52	0	0.0
						52	0	0.0
						52	31	60.0
						52	0	0.0
3	B	Therm Shock Temp Cycle Moisture Res Fine Leak Gross Leak Stat EM	-55°C, 125°C, 15 cyc, Liquid -65°C, 150°C, 10 cyc, 10/10 DT -10°C, 65°C, 98% RH Radiis, 5.E-8, 12 Min, 5 Atmo Fluor, 125°C, 3X, 90 PSIG 25°C, 125°C, -55°C	TTL	HDIP	75	0	0.0
	C					75	0	0.0
						75	0	0.0
						75	0	0.0
						75	0	0.0
						75	0	0.0
						75	0	0.0

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
3	B	Therm Shock Temp Cycle	-55°C, 125°C, 15 cyc, Liquid	TTL	HFPK	106	0	0.0
		Moisture Res	-65°C, 150°C, 10 cyc, 10/10 DT			106	0	0.0
	C	S & F EM	-10°C, 65°C, 96% RH			106	0	0.0
		Fine Leak	25°C, 125°C, -55°C			106	0	0.0
		Gross Leak	Radius, 5.E-8, 12 Min, 5 Atmo			106	0	0.0
			Flour, 125°C, 3X, 90 PSIG			106	0	0.0
3	B	Therm Shock Temp Cycle	-55°C, 125°C, 15 cyc	TTL	HDIP	52	0	0.0
		Moisture Res	-65°C, 150°C, 10 cyc, 10/10 DT			52	0	0.0
		Visual Insp	-10°C, 65°C, 98% RH			52	0	0.0
	C	Fine Leak	N.R.			52	34	65.0
		Gross Leak	Radius, 5.E-8, 12 Min, 5 Atmo			52	0	0.0
			Flour, 125°C, 3X, 90 PSIG			52	0	0.0
6	B	Therm Shock Temp Cycle	-55°C, 125°C, 15 cyc	TTL	PDIP	20	0	0.0
		Solderability	-65°C, 150°C, 10 cyc			20	0	0.0
		Terminal Str	260°C			20	0	0.0
		VBVRFQ	N.R.			20	0	0.0
		Mech Shock	20 Hz, 2 KHz, 20 G, 3 Axes			20	0	0.0
	C	Visual Insp	1.5 kg, 0.5 msec, 3 Axes, 5 Bios			20	0	0.0
		Hermeticity	N.R.			20	0	0.0
2	B	Therm Shock Therm Shock	0°C, 100°C, 15 cyc, Liquid	TTL	PDIP	25	0	0.0
			-65°C, 150°C, 15 cyc, Liquid			25	0	0.0
3	B	Therm Shock VBVRFQ	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	52	0	0.0
		Cnst Acc	20 Hz, KHz, 20 G, 3 Axes			52	0	0.0
	C	Stat EM	30 Kg, 6 Axes, 1 Min			52	0	0.0
			25°C, 125°C, -55°C			52	0	0.0
3	B	Therm Shock VBVRFQ	-55°C, 125°C, 15 cyc, Liquid	TTL	HFPK	52	0	0.0
		Cnst Acc	20 Hz, 2 KHz, 20 G, 3 Axes			52	0	0.0
	C	Stat EM	30 Kg, 6 Axes, 1 Min			52	0	0.0
			25°C, 125°C, -55°C			52	0	0.0
2	B	Therm Shock VBVRFQ	-55°C, 125°C, 15 cyc, Liquid	HTTL	HDIP	29	0	0.0
	C	Fine-Leak	20 Hz, 2 KHz, 20 G, 3 Axes			29	0	0.0
			5.E-8, 60 Min, 30 Mfn			29	4	14.0

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
2	B	Therm Shock VBVRFQ	-55°C, 125°C, 15 cyc, Liquid 20 Hz, 2 KHz, 20 G, 3 Axes	TTL	HDIP	41	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 30 Min			41	0	0.0
						41	5	12.0
2	B	Therm Shock VBVRFQ	-65°C, 150°C, 15 cyc, Liquid 20 Hz, 2 KHz, 20 G, 3 Axes	HTTL	HDIP	20	0	0.0
	C	Fine Leak	Rad's, 5.E-8, 12 Min, 5 Atmo			20	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			20	0	0.0
						20	0	0.0
2	B	Therm Shock VBVRFQ	-55°C, 125°C, 15 cyc, Liquid 20 Hz, 2 KHz, 20 G, 3 Axes	TTL	HDIP	241	0	0.0
	C	Fine Leak	Rad's, 5.E-8, 12 Min, 5 Atmo			241	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			241	25	10.0
						241	1	0.41
2	B	Therm Shock VBVRFQ	-65°C, 150°C, 15 cyc, Liquid 20 Hz, 2 KHz, 20 G, 3 Axes	TTL	HFPK	90	0	0.0
	C	Fine Leak	Rad's, 5.E-8, 12 Min, 5 Atmo			90	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			90	0	0.0
						90	0	0.0
2	B	Therm Shock VBVRFQ	-55°C, 125°C, 15 cyc, Liquid 20 Hz, 2 KHz, 20 G, 3 Axes	HTTL	HDIP	361	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 30 Min			361	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			361	4	1.1
		EM	25°C			361	6	1.7
						361	1	0.28
2	B	Therm Shock VBVRFQ	-55°C, 125°C, 15 cyc, Liquid 20 Hz, 2 KHz, 20 G, 3 Axes	HTTL	HFPK	148	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 30 Min			148	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			148	0	0.0
		EM	25°C			148	0	0.0
2	B	Therm Shock VBVRFQ	-55°C, 125°C, 15 cyc, Liquid 20 Hz, 2 KHz, 20 G, 3 Axes	TTL	HDIP	690	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 30 Min			690	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			690	8	1.2
		EM	25°C			690	3	0.44
						690	0	0.0
2	B	Therm Shock VBVRFQ	-55°C, 125°C, 15 cyc, Liquid 20 Hz, 2 KHz, 20 G, 3 Axes	HTTL	HFPK	144	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 30 Min			144	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			144	0	0.0
		EM	25°C			144	2	1.4
						144	0	0.0

TABLE 32: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	156	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			156	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			156	21	13.0
		Gross Leak	Flyor, 125°C, 3X, 90 PSIG			156	3	1.9
		EM	25°C, 125°C, -55°C			132	0	0.0
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HFPK	34	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			34	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			34	1	2.9
		Gross Leak	Flyor, 125°C, 3X, 90 PSIG			34	1	2.9
		EM	25°C, 125°C, -55°C			34	0	0.0
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	HTTL	HFPK	38	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			38	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			38	0	0.0
		Gross Leak	Flyor, 125°C, 3X, 90 PSIG			38	0	0.0
		S & F EM	25°C, 125°C, -55°C			38	0	0.0
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	38	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			38	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			38	0	0.0
		Gross Leak	Flyor, 125°C, 3X, 90 PSIG			38	0	0.0
		S & F EM	25°C, 125°C, -55°C			38	1	2.6
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	HTTL	HDIP	52	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			52	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			52	0	0.0
		Gross Leak	Flyor, 125°C, 3X, 90 PSIG			52	0	0.0
		Stat EM	25°C, 125°C, -55°C			52	0	0.0
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	217	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			217	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			217	1	0.46
		Gross Leak	Flyor, 125°C, 3X, 90 PSIG			217	0	0.0
		Stat EM	25°C, 125°C, -55°C			217	0	0.0

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
2	B	Therm Shock VBVRFQ	-55°C, 125°C, 15 cyc, Liquid 20 Hz, 2 KHz, 20 G, 3 Axes	TTL	HFPK	251	0	0.0
	C	Fine Leak Gross Leak Stat EM	5.E-8, 60 Min, 30 Min Fluor, 125°C, 3X, 90 PSIG 25°C, 125°C, -55°C			251 251 251	0 0 2	0.0 0.0 0.80
4	B	Therm Shock VBVRFQ	-65°C, 150°C, 15 cyc, Liquid 20 Hz, 2 KHz, 20 G, 3 Axes	TTL	HFPK	8	0	0.0
		Temp Cycle Moisture Res	-65°C, 150°C, 10 cyc, 10/10 DI -10°C, 65°C, 90% RH			8 8	0 0	0.0 0.0
	C	Fine Leak Gross Leak	Radis, 5.E-8, 12 Min, 5 Atmo Fluor, 125°C, 3X, 90 PSIG			8 8	0 0	0.0 0.0
2	B	Therm Shock VBVRFQ	-55°C, 125°C, 15 cyc, Liquid 20 Hz, 2 KHz, 20 G, 3 Axes	LTTL	HDIP	38	0	0.0
	C	Visual Insp Stat EM	H.R. 25°C, 125°C, -55°C			38 38 38	0 0 0	0.0 0.0 0.0
1	A	Bake	125°C	HTTL	PDIP	272	0	0.0
	B	Therm Shock	0°C, 100°C, 10 cyc, Liquid			272	0	0.0
	C	EN	25°C, 125°C			272	7	2.6
1	A	Bake	125°C	TTL	PDIP	2,186	0	0.0
	B	Therm Shock	0°C, 100°C, 10 cyc, Liquid			2,186	0	0.0
	C	EN	25°C, 125°C			2,186	111	5.1
7	A	Dynamic EM	H.R.	HTTL	HDIP	13	0	0.0
	B	Therm Shock	-55°C, 125°C, 15 cyc			13	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc			13	0	0.0
		Solderability	260°C			13	0	0.0
		Terminal Str	N.R.			13	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			13	0	0.0
		Mech Shock	1.5 Kg, C.5 msec, 3 Axes, 5 Bls			13	0	0.0
		Lead Fatigue	8 cz, 90 Deg. 2 Arcs			13	0	0.0
	C	Dynamic EM	H.R.			13	0	0.0

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses for Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
7	A	Dynamic EM	N.R.	TTL	PUIP	93	0	0.0
	B	Therm Shock	-55°C, 125°C, 15 cyc			93	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc			93	0	0.0
		Solderability	260°C			93	0	0.0
		Terminal Str	260°C			93	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			93	0	0.0
		Mech Shock	1.5 Kg, 0.5 msec, 3 Axes, 5 Blos			93	0	0.0
2	C	Lead Fatigue	8 Oz, 90 Deg, 3 Arcs			93	0	0.0
		Dynamic EM	N.R.			93	0	0.0
		Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo	TTL	HDIP	144	0	0.0
		Therm Shock	-55°C, 125°C, 15 cyc, Liquid			144	0	0.0
		Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			144	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			144	0	0.0
		Gross Leak	Radis, 5.E-8, 12 Min, 5 Atmo			144	0	0.0
2	C	Fine Leak	Fluor, 125°C, 3X, 90 PSIG			144	0	0.0
		Therm Shock	Radis, 5.E-8, 12 Min, 5 Atmo	TTL	HDIP	73	0	0.0
		Fine Leak	-55°C, 125°C, 15 cyc, Liquid			73	0	0.0
		VBVRFQ	Radis, 5.E-8, 12 Min, 5 Atmo			73	0	0.0
		Fine Leak	20 Hz, 2 KHz, 20 G, 3 Axes			73	2	2.7
		Gross Leak	Radis, 5.E-8, 12 Min, 5 Atmo			73	0	0.0
		EM	Fluor, 125°C, 3X, 90 PSIG			73	0	0.0
2	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo	TTL	HDIP	24	0	0.0
		Therm Shock	-55°C, 125°C, 15 cyc, Liquid			24	0	0.0
		Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			24	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			24	0	0.0
		Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			24	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			24	0	0.0
		EM	25°C, 125°C, -55°C			24	0	0.0
3	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo	TTL	HDIP	205	0	0.0
		Therm Shock	-55°C, 125°C, 15 cyc, Liquid			205	0	0.0
		Fine Leak	20 Hz, 2 KHz, 20 G, 3 Axes			205	0	0.0
		VBVRFQ	Radis, 5.E-8, 12 Min, 5 Atmo			205	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			205	0	0.0
		EM	25°C, 125°C, -55°C			205	0	0.0
		Stat EM	5.E-8, 50 Min, 30 Min	HTTL	HFPK	205	1	0.49

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
1	A B	Stat EM Therm Shock	25°C, 125°C, -55°C -55°C, 125°C, 15 cyc, Liquid	L TTL	HDIP	12 12	0 0	0.0 0.0
1	A B	Stat EM Therm Shock	25°C, 125°C, -55°C -55°C, 125°C, 15 cyc, Liquid	L TTL	HFPK	13 13	0 0	0.0 0.0
1	A B C	Stat EM Therm Shock Fine Leak Gross Leak	25°C, 125°C, -55°C -55°C, 125°C, 15 cyc, Liquid Radis, 5.E-8, 12 Min, 5 Atmo Fluor, 125°C, 3X, 90 PSIG	L TTL	HDIP	31 31 31 31	0 0 0 0	0.0 0.0 0.0 0.0
1	A B C	Stat EM Therm Shock Fine Leak Gross Leak	25°C, 125°C, -55°C -55°C, 125°C, 15 cyc, Liquid Radis, 5.E-8, 12 Min, 5 Atmo Fluor, 125°C, 3X, 90 PSIG	TTL	HDIP	19 19 19 19	0 0 0 0	0.0 0.0 0.0 0.0
1	A B C	Stat EM Therm Shock Fine Leak Gross Leak	25°C, 125°C, -55°C -55°C, 125°C, 15 cyc, Liquid Radis, 5.E-8, 12 Min, 5 Atmo Fluor, 125°C, 3X, 90 PSIG	TTL	HFPK	38 38 37 37	0 1 0 0	0.0 2.6 0.0 0.0
3	A B C	Stat EM Therm Shock Temp Cycle Moisture Res Fine Leak Gross Leak Stat EM	25°C, 125°C, -55°C -55°C, 125°C, 15 cyc, Liquid -65°C, 150°C, 10 cyc, 10/10 DT -10°C, 65°C, 98% RH Radis, 5.E-8, 12 Min, 5 Atmo Fluor, 125°C, 3X, 90 PSIG 25°C, 125°C, -55°C	L TTL	HFPK	87 87 87 87 87 87 87	0 0 0 0 0 0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0
2	B C	VBVRFQ Therm Shock Fine Leak Gross Leak	20 Hz, 2 KHz, 20 G, 3 Axes -65°C, 150°C, 15 cyc, Liquid Radis, 5.E-8, 12 Min, 5 Atmo Fluor, 125°C, 3X, 90 PSIG	TTL	HDIP	35 35 35 35	0 0 2 0	0.0 0.0 5.7 0.0
2	B C	VBVRFQ Therm Shock Stat EM	20 Hz, 2 KHz, 20 G, 3 Axes -55°C, 125°C, 15 cyc, Liquid 25°C, 125°C, -55°C	TTL	HDIP	50 50 50	0 0 0	0.0 0.0 0.0

MICROCIRCUIT DEVICE RELIABILITY

DIGITAL EVALUATION AND
FAILURE ANALYSIS DATA

SECTION 2

DIGITAL EVALUATION DATA -
DETAILED LISTINGS

Section 2

DIGITAL EVALUATION DATA - DETAILED LISTINGS

The data presented in this section have been extracted from numerous government and industry reports dealing with SSI and MSI digital microcircuits.* These data include component level burn-in and environmental/screening tests, as well as board- and equipment-level environmental tests, environmental burn-in tests, and step stress tests. The following listings are classified according to 1) test type, 2) device function, 3) operational type (CMOS, TTL, etc.), 4) device manufacturer, and 5) commercial part number and are formatted to present relevant information about each specific test in terms of package characteristics, screen class levels, test stress parameters and number tested/number failed criteria. In addition, where a verified failure(s) has occurred, the appropriate line entry will indicate a microcircuit failure event file cross-reference number (MFEF#). This MFEF# relates directly to Part 2, Section 4 of this publication (Digital Failure Analysis Data-Detailed Listings) in that a detailed description of all of the reported and pertinent device/test/failure information dealing with a specific failure event will be listed in this section.

The information listed within this section has been screened to include only those data which completed testing after January, 1975. Also, part numbers are presented in a left-hand justified format and, within each identical part number, are arranged in order of decreasing screen class quality (A-1 to NONE). Care should be taken when the reader wishes to locate a specific part number, as a part number such as 54107 would, due to the left-hand justification process, be listed before a part number of 5411 as a result of the fourth digit (0 and 1, respectively).

The data presented here are best utilized for comparing the results of various test sequences on identical commercial part numbers as a function of

* Digital LSI and memory devices are contained under a separate cover entitled "Memory/LSI Data." (Reliability Analysis Center Document Number MDR-13)

manufacturer, screen class level, etc., as well as an indication through cross-referencing of the detailed failure descriptions which result from a specific test type. The user is cautioned, however, that the data contained herein may not be used in lieu of other contractually cited references and specifications.

A Usage Guide directly follows and will prove beneficial to the reader who wishes to familiarize himself with the format, terminology and abbreviations used throughout Section 2.

USAGE GUIDE DIGITAL EVALUATION DATA

The description given below applies to the computer listings of Section 2. The circled numbers shown on the tabulation form below refer to the explanatory text which follows. A few minutes spent familiarizing oneself with the information supplied below will aid in the user's comprehension of the data contained herein.

② ADDER				① BURN-IN				RELIABILITY ANALYSIS CENTER			
③ BASIC TECHNOLOGY BIPOLAR				④ OPERATIONAL TYPE TTL							
MANUFACTURER	PGC/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO.	PIXS	IMP REC	SEC	TYPE	LEVEL	REF.	TEST	HOURS	FLO	SUMMARY	/0
FAIRCHILD ⑤	EPK : N ⑧	12/75	BURN-IN			N.R. ⑭	6134	⑮	0:	⑯	
9304 ⑥	⑦ 16 :X.R. ⑨	⑪	⑫	⑬					⑰		
			EM								
			⑩								

① SOURCE CODE. The major grouping criterion for Section 2. The tests considered are Burn-In, Environmental, Board Level Environmental, Equipment Level Environmental, Environmental Burn-In, and Step Stress.

② DEVICE FUNCTION. Indicates basic design function (adder, buffer, etc.) and is listed alphabetically within each source code category.

③ BASIC TECHNOLOGY. Categorizes the digital microcircuits into Bipolar and MOS subgroups.

④ OPERATIONAL TYPE. Reflects the device technology (CMOS, PMOS, DTL, ECL, LTTL, HTTL, LSTTL, STTL, TTL, SUHL).

⑤ MANUFACTURER. Denotes the manufacturer of the tested devices. Manufacturers are arranged alphabetically within each operational type. The term "VARIOUS" is used to indicate parts produced by two or more manufacturers. This term is most commonly applied where second sourcing of equipment level parts occurs.

USAGE GUIDE (Cont'd)

⑥ PART NO. The listing of the device part number, neglecting package and temperature rating suffixes/prefixes. Part numbers are arranged in left-hand justified numerical order, allowing part number sequences as follows: 5408, 54107, 5411, 74160, 8162.

⑦ PKG/PINS (PACKAGE PINS). Indicates the generic package construction and the number of pins per package.

PACKAGE PREFIXES

BLANK	Hermetic
E	Epoxy
S	Silicone

PACKAGE SUFFIXES

DIP	Dual In-Line Package
FPK	Flat Package
QIP	Quad In-Line Package

⑧ SCR CL (SCREEN CLASS). Screen class is listed in order of decreasing quality within each part number category. These screening codes are of the same basic form as found in MIL-HDBK-217C, with slight variations.

A-1	MIL-STD-883, Method 5004, Class A (Class S)	C-1	MIL-STD-883, Method 5004, Class C
JB	MIL-M-38510, Class B (JAN)	C-2	Vendor equivalent of C-1
B-1/JB	Combination of JAN and B-1 parts	N	No screening beyond vendor's normal QC (Class D, D-1)
B-1	MIL-STD-883, Method 5004, Class B	N.R.	Not Reported
B-2	Vendor equivalent of B-1		

⑨ TMP RNG (TEMPERATURE RANGE). Indicates the min/max temperature limits of the package type, in degrees Centigrade, where -55°/125°C is typically a military quality temperature range and 0°/70°C is typically a commercial package temperature range.

USAGE GUIDE (Cont'd)

- ⑩ DATE. Indicates the date (month/year) when testing was completed. Testing completed prior to January, 1975 has been excluded from this detailed listing.
- ⑪ SRC (SOURCE). Indicates by whom the data were generated, i.e., vendor (V), user (U), independent test lab, (I), government agency (G), or qualification tests (Q).
- ⑫ TEST TYPE. Test type terms are listed below. Where a sequence of tests were performed, the tests are listed in the order in which they occurred.

ACC RB	Accelerated Reverse Bias
AUTOCLV	Autoclave
BAKE	High Temperature, Non-Operating Bake
BONDSTR	Bond Strength
BURN-IN	Burn-In (NOC)
CNSTACC	Constant Acceleration
EM	Electrical Measurement
FINE LK	Fine Leak
FNCT EM	Functional Electrical Measurement
GROSS LK	Gross Leak
HERMET	Hermeticity
HT CONT	High Temperature Continuity
LEAD FTG	Lead Fatigue
MECH SHK	Mechanical Shock
MINOIL	Mineral Oil
MOIST	Moisture Resistance
N.A.	Not Applicable
OP CNST	Constant Operation
OP DYN	Dynamic Operation
PAR EXC	Parallel Excitation
REV BIAS	Reverse Bias
RINGCNT	Ring Counter
SALT ATM	Salt Atmosphere

USAGE GUIDE (Cont'd)

S&D EM	Static & Dynamic Electrical Measurement
S&F EM	Static & Functional Electrical Measurement
SDF EM	Static, Dynamic & Functional Electrical Measurements
SLDRHT	Solder Heat
SOLDER	Solderability
STAT EM	Static Electrical Measurement
TEMP CYC	Temperature Cycle
THRMSHK	Thermal Shock
VBVRFQ	Vibration, Varying Frequency
VIB FTG	Vibration Fatigue
VIB RDM	Random Vibration
VIS INS	Visual Inspection
X-RAY	X-ray Inspection

⑬ STRESS LEVEL. This column contains available information about the test conditions. The higher of any two temperatures listed is used in calculating the junction temperature ("JCT*. TEMP.") of the device under test. Percentages apply to the percentage of applied power, the percent "ON" time (listed after the number of g's for power cycling tests), the percentage of applied vibration, or, when "RH" is the suffix, the percentage of relative humidity. One hundred percent rated power should be assumed when not stated. Descriptors used are as follows:

ARCS	Number of Arcs
AXES	As defined in MIL-STD-883B
BDS	Number of Bonds
BLOS	Number of Blows
C	Degrees Centigrade
CYC/CY	Number of Cycles
DEG	Degrees
DT	Dwell Time
E	Each
FLUOR	Fluorocarbon
FO	Fan Out

USAGE GUIDE (Cont'd)

G	Gravitational Acceleration Constant
GMS MSQ	Grams Per Square Meter
HE	Helium
HZ	Hertz
IL	Leakage Current
KCY	Kilocycles
KG	Kilograms
KHZ	Kilohertz
MA	Milliamps
MIN	Minutes
MSEC	Milliseconds
OZ	Ounces
%	Percent
PSIG	Pounds Per Square Inch, Gauge (PSIG=PSIA+15 at sea level)
RADIS	Radioisotope
RH	Relative Humidity
SEC	Seconds
X	Times (magnification)

⑫ SPEC. REF. (SPECIFICATION REFERENCE). The military document and method number describing the test type to which the referenced device was tested.

⑬ NO. TEST (NUMBER TESTED). The number of devices tested for a given test type.

⑭ DEVICE HOURS. This number represents the product of the number of devices tested multiplied by the number of test hours per device. The "E**" symbol indicates ten raised to the "***" power. Thus, "5.9E 04" represents fifty-nine thousand (59,000) hours.

⑰ NO. FLD (NUMBER FAILED). The number of devices which failed the test type criteria.

USAGE GUIDE (Cont'd)

⑮ FAILURE SUMMARY/#. This column contains a Microcircuit Failure Event File cross-reference number, followed by the number of devices represented by each MFEF number. Example: MFEF 123/2 means that the failure description for 2 devices is referenced by MFEF 123. The detailed MFEF numbers and their failure descriptions are found in Part 2, Section 4 of this publication (Digital Failure Analysis Data-Detailed Listings).

ADDER				BURN-IN				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TMP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY	/#
FAIRCHILD	FPK : N	12/75	BURN-IN				6334		0		
9304	16 : N.R.	U	EM			N.R.	6334		7		
		U				N.R.					
ITT	FPK : N	12/75	BURN-IN				6371		0		
5482	14 : -55/125	U	EM			N.R.	6371		46		
		U				N.R.					
ITT	FPK : N	12/75	BURN-IN				5033		0		
9304	16 : -55/125	U	EM			N.R.	5033		9		
		U				N.R.					
T.I.	FPK : N	12/75	BURN-IN				2415		0		
5482	14 : -55/125	U	EM			N.R.	2415		4		
		U				N.R.					

BUFFER				BURN-IN				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE HIGH SPEED TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TMP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY	/#
SIGNETICS	FPK : N	12/75	BURN-IN				10104		0		
54H40	14 : -55/125	U	EM			N.R.	10104		46		
		U				N.R.					
T.I.	FPK : N	12/75	BURN-IN				13446		0		
54H40	14 : -55/125	U	EM			N.R.	13446		17		
		U				N.R.					

BUFFER				BURN-IN				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE LS TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TMP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY	/#
T.I.	E-DIP : N	05/77	FNCT EM :025C				1492		3		
74LS38	14 : 0/70C	U	BURN-IN :125C			N.R.	1489	2.50E 05	0		
		U	FNCT EM :025C			N.R.	1489		20		
		U				N.R.					
T.I.	E-DIP : N	05/77	FNCT EM :025C				1429		1		
74LS38	14 : 0/70C	U	BURN-IN :125C			N.R.	1428	2.40E 05	0		
		U	FNCT EM :025C			N.R.	1428		1		
		U				N.R.					

BUFFER				BURN-IN				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TMP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY	/#
T.I.	DIP : N	12/75	BURN-IN				80		0		
5440	14 : -55/125	U	EM			N.R.	80		0		
		U				N.R.					
NATIONAL	DIP : N	12/75	BURN-IN				40		0		
7200	14 : -55/125	U	EM			N.R.	40		0		
		U				N.R.					

CUSTOM

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE PHOS,STATIC

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NITRON	DIP :B-1 40 :N.R.	:02/78	:U	:REVBIAS	:125C	:N.R.	:26265:	4.41E 06	:0:	:
				:S&F EM	:085C		:26265:			
				:STAT EM	:~035C		:26265:			
				:FNCT EM	:025C		:26265:			
				:VIS INS	:		:26265:			
				:U	:		:26265:			
NITRON	DIP :B-1 40 :N.R.	:02/78	:U	:REVBIAS	:125C	:N.R.	:2820:	4.74E 05	:0:	:
				:S&F EM	:085C		:2820:			
				:STAT EM	:~035C		:2820:			
				:FNCT EM	:025C		:2820:			
				:VIS INS	:		:2220:			
				:U	:		:2220:			
NITRON	DIP :B-1 40 :N.R.	:02/78	:U	:REVBIAS	:125C	:N.R.	:137:	2.30E 04	:0:	:
				:S&F EM	:085C		:137:			
				:STAT EM	:~035C		:137:			
				:FNCT EM	:025C		:137:			
				:VIS INS	:		:137:			
				:U	:		:137:			

COUNTER

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ADV MICRO DEV 74LS193	E-DIP :C-1 16 :0/70C	:05/77	:U	:FNCT EM	:025C	:N.R.	:524:	8.72E 04	:5:	:
				:BURN-IN	:125C		:519:			
				:FNCT EM	:025C		:519:			
				:U	:		:			
ADV MICRO DEV 74LS193	E-DIP :C-1 16 :0/70C	:05/77	:U	:FNCT EM	:025C	:N.R.	:87:	1.46E 04	:0:	:
				:BURN-IN	:125C		:87:			
				:FNCT EM	:025C		:87:			
				:U	:		:			

COUNTER

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ADV MICRO DEV 9310	FPK :N 16 :~55/125	:12/75	:U	:BURN-IN	:	:N.R.	:1515:	:	:0:	:
				:EM	:		:1515:			
				:U	:		:			
				:U	:		:			
ADV MICRO DEV 9316	FPK :N 16 :~55/125	:12/75	:U	:BURN-IN	:	:N.R.	:8942:	:	:0:	:
				:EM	:		:8942:			
				:U	:		:			
				:U	:		:			
ADV MICRO DEV 9316	DIP :N 16 :N.R.	:12/75	:U	:BURN-IN	:	:N.R.	:796:	:	:0:	:
				:EM	:		:796:			
				:U	:		:			
				:U	:		:			

COUNTER

BOPN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TEMP RNG	DATE/ SRC	TEST TYPE	STATUS LEAD	SPEC. REF.	NO. TEST	DEVICE MARK	NO. FIELD	FAILURE SUMMARY	IN
FAIRCHILD 9310	FPK 16	N -55/125	12/75 U	BURN-IN FM			221		0		
FAIRCHILD 9310	DIP 16	N -55/125	12/75 "	BURN-IN FM			32		0		
FAIRCHILD 9316	FPK 16	N -55/125	12/75 U	BURN-IN FM			4119		0		
FAIRCHILD 9316	DIP 16	N -55/125	12/75 "	BURN-IN FM			427		0		
SIGNETICS 5493	DIP 14	N -55/125	12/75 "	BURN-IN FM			42		0		
T.I. 5499A	FPK 14	N -55/125	12/75 U	BURN-IN FM			67		0		
T.I. 5490A	DIP 14	N -55/125	12/75 "	BURN-IN FM			55		0		
ADV MICRO DEV 9301	FPK 16	N -55/125	12/75 U	BURN-IN FM			3673		0		
ADV MICRO DEV 9301	DIP 16	N -55/125	12/75 "	BURN-IN FM			424		0		
ITT 9301	FPK 16	N -55/125	12/75 U	BURN-IN FM			1714		0		
T.I. 5442A	DIP 16	N -55/125	12/75 "	BURN-IN FM			24		0		

DEC-DFSLX

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TEMP RNG	DATE/ SRC	TEST TYPE	STATUS LEAD	SPEC. REF.	NO. TEST	DEVICE MARK	NO. FIELD	FAILURE SUMMARY	IN
FAIRCHILD 74LS138	DIP 16	N -55/125	12/75 U	BURN-IN FM			125		0		
SIGNETICS 74LS138	DIP 16	N -55/125	12/75 "	BURN-IN FM			257		0		

FPM4004

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE HIGH SPEED TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
T-1. 54H04	FPK : N 14	-55/125	12/75	BURN-IN		N.R.	150:		0:		
				EM		N.R.	150:		0:		
						N.R.					
T-1. 54H04	FPK : N 14	-55/125	12/75	BURN-IN		N.R.	541:		0:		
				EM		N.R.	541:		2:		
						N.R.					

PL14 PL10P

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE LOW POWER TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
T-1. 54L74	DIP : N 14	-55/125	12/75	BURN-IN		N.R.	105:		0:		
				EM		N.R.	105:		0:		
						N.R.					

F11P F10P

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE HIGH SPEED TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
PARCHELO 54H102	FPK : N 14	-55/125	12/75	BURN-IN		N.R.	94:		0:		
				EM		N.R.	94:		1:		
						N.R.					
RAYTHEON 3130	FPK : N 14	-55/125	12/75	BURN-IN		N.R.	138:		0:		
				EM		N.R.	138:		0:		
						N.R.					
SIEMENS 54H72	FPK : N 14	-55/125	12/75	BURN-IN		N.R.	1388:		0:		
				EM		N.R.	1388:		15:		
						N.R.					
SIEMENS 54H73	FPK : N 14	-55/125	12/75	BURN-IN		N.R.	463:		0:		
				EM		N.R.	463:		1:		
						N.R.					
T-1. 54H101	FPK : N 14	-55/125	12/75	BURN-IN		N.R.	155:		0:		
				EM		N.R.	155:		0:		
						N.R.					
T-1. 54H102	FPK : N 14	-55/125	12/75	BURN-IN		N.R.	3153:		0:		
				EM		N.R.	3153:		2:		
						N.R.					
T-1. 54H103	FPK : N 14	-55/125	12/75	BURN-IN		N.R.	59:		0:		
				EM		N.R.	59:		0:		
						N.R.					
T-1. 54H71	FPK : N 14	-55/125	12/75	BURN-IN		N.R.	1435:		0:		
				EM		N.R.	1435:		9:		
						N.R.					
T-1. 54H71	FPK : N 14	-55/125	12/75	BURN-IN		N.R.	1065:		0:		
				EM		N.R.	1065:		1:		
						N.R.					

FLIP FLOP

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD 74LS174	E-DIP : N 16	: 0/70C	05/77 U	FNCT EM : 025C BURN-IN : 125C		N.R.	205:		1:	
			U	FNCT EM : 025C		N.R.	204:	3.43E 04	0:	
			U	FNCT EM : 025C		N.R.	204:		3:	
NATIONAL 74LS74	E-DIP : N 14	: 0/70C	05/77 U	FNCT EM : 025C BURN-IN : 125C		N.R.	2183:		11:	
			U	FNCT EM : 025C		N.R.	2172:	3.65E 05	0:	
			U	FNCT EM : 025C		N.R.	2172:		0:	
SIGNETICS 74LS174	E-DIP : N 16	: 0/70C	05/77 U	FNCT EM : 025C BLAN-IN : 125C		N.R.	50:		0:	
			U	FNCT EM : 025C		N.R.	50:	8.40E 03	0:	
			U	FNCT EM : 025C		N.R.	50:		0:	
SIGNETICS 74LS74	E-DIP : N 14	: 0/70C	05/77 U	FNCT EM : 025C BURN-IN : 125C		N.R.	1360:		0:	
			U	FNCT EM : 025C		N.R.	1360:	2.28E 05	0:	
			U	FNCT EM : 025C		N.R.	1360:		4:	
T.I. 74LS'23	E-DIP : N 16	: 0/70C	05/77 U	FNCT EM : 025C BURN-IN : 125C		N.R.	34:		1:	
			U	FNCT EM : 025C		N.R.	33:	5.54E 03	0:	
			U	FNCT EM : 025C		N.R.	33:		0:	
T.I. 74LS73	E-DIP : N 14	: 0/70C	05/77 U	FNCT EM : 025C BURN-IN : 125C		N.R.	80:		3:	
			U	FNCT EM : 025C		N.R.	77:	1.29E 04	0:	
			U	FNCT EM : 025C		N.R.	77:		0:	
T.I. 74LS74	E-DIP : N 14	: 0/70C	05/77 U	FNCT EM : 025C BURN-IN : 125C		N.R.	2056:		27:	
			U	FNCT EM : 025C		N.R.	2029:	3.41E 05	0:	
			U	FNCT EM : 025C		N.R.	2029:		1:	

FLIP FLOP

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD 9601	FPK : N 14	: -55/125	12/75 U	BURN-IN : EM :		N.R.	3803:		0:	
			U	EM :		N.R.	3803:		11:	
FAIRCHILD 9601	DIP : N 14	: -55/125	12/75 U	BURN-IN : EM :		N.R.	127:		0:	
			U	EM :		N.R.	127:		0:	
ITT 9601	FPK : N 14	: -55/125	12/75 U	BURN-IN : EM :		N.R.	936:		0:	
			U	EM :		N.R.	936:		1:	
ITT 9601	DIP : N 14	: -55/125	12/75 U	BURN-IN : EM :		N.R.	268:		0:	
			U	EM :		N.R.	268:		0:	
ITT 9601	FPK : N 14	: -55/125	12/75 U	BURN-IN : EM :		N.R.	537:		0:	
			U	EM :		N.R.	537:		0:	

FLIP FLOP

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
SIGNETICS 5470	FPK 14	N -55/125	12/75	BURN-IN U		N.R.	149:		0:		
				EM		N.R.	149:		4:		
T-I. 54121	DIP 14	N -55/125	12/75	BURN-IN U		N.R.	18:		0:		
				EM		N.R.	18:		0:		
T-I. 5470	FPK 14	N -55/125	12/75	BURN-IN U		N.R.	19:		0:		
				EM		N.R.	19:		0:		
				U		N.R.					

GATE

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE LOW POWER TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
T-I. 54L10	DIP 14	N -55/125	12/75	BURN-IN U		N.R.	14:		0:		
				EM		N.R.	14:		0:		
				U		N.R.					

GATE

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE HIGH SPEED TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
ITT 54H00	FPK 14	N -55/125	12/75	BURN-IN U		N.R.	919:		0:		
				EM		N.R.	919:		1:		
SIGNETICS 54H00	FPK 14	N -55/125	12/75	BURN-IN U		N.R.	7260:		0:		
				EM		N.R.	7260:		7:		
SIGNETICS 54H00	DIP 14	N -55/125	12/75	BURN-IN U		N.R.	224:		0:		
				EM		N.R.	224:		1:		
				U		N.R.					
SIGNETICS 54H01	FPK 14	N -55/125	12/75	BURN-IN U		N.R.	2637:		0:		
				EM		N.R.	2637:		0:		
				U		N.R.					
SIGNETICS 54H10	FPK 14	N -55/125	12/75	BURN-IN U		N.R.	2431:		0:		
				EM		N.R.	2431:		3:		
				U		N.R.					
SIGNETICS 54H11	FPK 14	N -55/125	12/75	BURN-IN U		N.R.	5858:		0:		
				EM		N.R.	5858:		4:		
				U		N.R.					
SIGNETICS 54H20	FPK 14	N -55/125	12/75	BURN-IN U		N.R.	1613:		0:		
				EM		N.R.	1613:		0:		
				U		N.R.					
SIGNETICS 54H21	FPK 14	N -55/125	12/75	BURN-IN U		N.R.	1770:		0:		
				EM		N.R.	1770:		2:		
				U		N.R.					
SIGNETICS 54H30	FPK 14	N -55/125	12/75	BURN-IN U		N.R.	1289:		0:		
				EM		N.R.	1289:		1:		
				U		N.R.					

GATE

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /F
SIGNETICS	FPK : N	:12/75	:BURN-IN				3940:		0:	
54H51	14 :-55/125	U		EM		N.R.	3940:		4:	
		U				N.R.				
T.I.	FPK : N	:12/75	:BURN-IN				11965:		0:	
54H00	14 :-55/125	U		EM		N.R.	11965:		12:	
		U				N.R.				
T.I.	DIP : N	:12/75	:BURN-IN				148:		0:	
54H00	14 :-55/125	U		FM		N.R.	148:		6:	
		U				N.R.				
T.I.	FPK : N	:12/75	:BURN-IN				2307:		0:	
54H01	14 :-55/125	U		FM		N.R.	2307:		0:	
		U				N.R.				
T.I.	FPK : N	:12/75	:BURN-IN				3666:		0:	
54H10	14 :-55/125	U		FM		N.R.	3666:		5:	
		U				N.R.				
T.I.	FPK : N	:12/75	:BURN-IN				10237:		0:	
54H11	14 :-55/125	U		FM		N.R.	10237:		5:	
		U				N.R.				
T.I.	FPK : N	:12/75	:BURN-IN				2101:		0:	
54H20	14 :-55/125	U		EM		N.R.	2101:		5:	
		U				N.R.				
T.I.	FPK : N	:12/75	:BURN-IN				138:		0:	
54H21	14 :-55/125	U		EM		N.R.	138:		0:	
		U				N.R.				
T.I.	FPK : N	:12/75	:BURN-IN				1102:		0:	
54H21	14 :-55/125	U		EM		N.R.	1102:		0:	
		U				N.R.				
T.I.	FPK : N	:12/75	:BURN-IN				2163:		0:	
54H30	14 :-55/125	U		EM		N.R.	2163:		1:	
		U				N.R.				
T.I.	FPK : N	:12/75	:BURN-IN				3547:		0:	
54H51	14 :-55/125	U		FM		N.R.	3547:		4:	
		U				N.R.				
T.I.	FPK : N	:12/75	:BURN-IN				22356:		0:	
54H52	14 :-55/125	U		EM		N.R.	22356:		18:	
		U				N.R.				
T.I.	FPK : N	:12/75	:BURN-IN				282:		0:	
54H53	14 :-55/125	U		EM		N.R.	282:		0:	
		U				N.R.				
T.I.	FPK : N	:12/75	:BURN-IN				10890:		0:	
54H54	14 :-55/125	U		EM		N.R.	10890:		7:	
		U				N.R.				
T.I.	FPK : N	:12/75	:BURN-IN				3201:		0:	
54H55	14 :-55/125	U		EM		N.R.	3201:		5:	
		U				N.R.				
VARIOUS	DIP : N	:12/75	:BURN-IN				1175:		0:	
54H10	14 :-55/125	U		FM		N.R.	1175:		0:	
		U				N.R.				

DATA

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY 4120LAP			OPERATIONAL TYPE LS TTL							
MANUFACTURER PART NO	PKG/ PINS	SERIAL NO	DATE TEST	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
FAIRCHILD 74LS20	DIP-14	N	05/77	FNCT EM	0250	N.R.	75:		0:	
				BURN-IN	1250		75:	1.26E 04	0:	
				FNCT EM	0250		75:		0:	
FAIRCHILD 74LS32	DIP-14	N	05/77	FNCT EM	0250	N.R.	174:		0:	
				BURN-IN	1250		174:	2.92E 04	0:	
				FNCT EM	0250		174:		2:	
FAIRCHILD 74LS10	DIP-14	N	05/77	FNCT EM	0250	N.R.	2250:		2:	
				BURN-IN	1250		2248:	3.78E 05	0:	
				FNCT EM	0250		2248:		3:	
FAIRCHILD 74LS38	DIP-14	N	05/77	FNCT EM	0250	N.R.	856:		4:	
				BURN-IN	1250		852:	1.43E 05	0:	
				FNCT EM	0250		852:		0:	
NATIONAL 74LS20	DIP-14	N	05/77	FNCT EM	0250	N.R.	331:		1:	
				BURN-IN	1250		330:	5.54E 04	0:	
				FNCT EM	0250		330:		1:	
NATIONAL 74LS248	DIP-14	N	05/77	FNCT EM	0250	N.R.	140:		0:	
				BURN-IN	1250		140:	2.35E 04	0:	
				FNCT EM	0250		140:		0:	
SIGNETICS 74LS00	DIP-14	N	05/77	FNCT EM	0250	N.R.	2325:		4:	
				BURN-IN	1250		2321:	3.90E 05	0:	
				FNCT EM	0250		2321:		4:	
SIGNETICS 74LS02	DIP-14	N	05/77	FNCT EM	0250	N.R.	1252:		1:	
				BURN-IN	1250		1252:	2.10E 05	0:	
				FNCT EM	0250		1252:		2:	
SIGNETICS 74LS20	DIP-14	N	05/77	FNCT EM	0250	N.R.	491:		5:	
				BURN-IN	1250		486:	8.16E 04	0:	
				FNCT EM	0250		486:		0:	
SIGNETICS 74LS38	DIP-14	N	05/77	FNCT EM	0250	N.R.	480:		4:	
				BURN-IN	1250		476:	9.00E 04	0:	
				FNCT EM	0250		476:		129:	
SIGNETICS 74LS38	DIP-14	N	05/77	FNCT EM	0250	N.R.	407:		3:	
				BURN-IN	1250		404:		0:	
				FNCT EM	0250		404:		37:	
SIGNETICS 74LS00	DIP-14	N	05/77	FNCT EM	0250	N.R.	3595:		11:	
				BURN-IN	1250		3584:	6.02E 05	0:	
				FNCT EM	0250		3584:		2:	

GATE

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SEC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	//
T-1- 74LS13	E-DIP 14	N 0/70C	05/77	FNCT FM	025C	N.R.	35	0	0		
				BURN-IN	125C	N.R.	35	5.56E 03	0		
				FNCT FM	025C	N.R.	35	0	0		
						N.R.					
T-1- 74LS13	E-DIP 14	N 0/70C	05/77	FNCT FM	025C	N.R.	35	0	0		
				BURN-IN	125C	N.R.	35	4.07E 03	0		
				FNCT FM	025C	N.R.	35	1	0		
						N.R.					
T-1- 74LS20	E-DIP 14	N 0/70C	05/77	FNCT FM	025C	N.R.	35	0	0		
				BURN-IN	125C	N.R.	35	5.44E 03	0		
				FNCT FM	025C	N.R.	35	0	0		
						N.R.					
T-1- 74LS266	E-DIP 14	N 0/70C	05/77	FNCT FM	025C	N.R.	70	0	0		
				BURN-IN	125C	N.R.	70	1.18E 04	0		
				FNCT FM	025C	N.R.	70	0	0		
						N.R.					

GATE

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SEC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	//
SIGMETICS 5400	DIP 14	N -55/125	12/75	BURN-IN		N.R.	210	0	0		
				FM		N.R.	210	0	0		
						N.R.					
SIGMETICS 5402	DIP 14	N -55/125	12/75	BURN-IN		N.R.	42	0	0		
				FM		N.R.	42	0	0		
						N.R.					
SIGMETICS 7400	E-DIP 14	N 0/70C	11/77	DP DYS	025C	N.R.	40	1.20E 04	0		
				FM		N.R.	40	0	0		
						N.R.					
SIGMETICS 7430	E-DIP 14	N 0/70C	11/77	DP DYS	25C	N.R.	50	1.20E 04	0		
				FM		N.R.	50	0	0		
						N.R.					
T-1- 5400	DIP 14	N -55/125	12/75	BURN-IN		N.R.	330	0	0		
				FM		N.R.	330	0	0		
						N.R.					
T-1- 5413	DIP 14	N -55/125	12/75	BURN-IN		N.R.	70	0	0		
				FM		N.R.	70	0	0		
						N.R.					
T-1- 5420	DIP 14	N -55/125	12/75	BURN-IN		N.R.	20	0	0		
				FM		N.R.	20	0	0		
						N.R.					
T-1- 5430	DIP 14	N -55/125	12/75	BURN-IN		N.R.	20	0	0		
				FM		N.R.	20	0	0		
						N.R.					
T-1- 5454	FPK 14	N -55/125	12/75	BURN-IN		N.R.	1300	0	0		
				FM		N.R.	1300	3	0		
						N.R.					

GATE

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE ECL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TEMP RING	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
FAIRCHILD	FPK	N	12/75	OP CNST	125C		49	8.23E 03	0	
1101	16	N-R		EM		N-R	49		0	
				V		N-R				

GENERATOR

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TEMP RING	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
T.I.	FPK	N	12/75	BURN-IN			382		0	
54180	14	55/125		EM		N-R	382		0	
				U		N-R				

GENERATOR

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE PHOS, STATIC

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TEMP RING	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
NITRON	DIP	N	02/78	REVBIA	125C		2553	4.29E 05	0	
	40	N-R		U		N-R				
				S&F EM	085C	N-R	2553		25	
				STAT EM	035C	N-R	2553		18	
				FNCT EM	025C	N-R	2553		27	
				U		N-R	2553		12	
				VIS INS		N-R				

INVERTER

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH-SPEED TTL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TEMP RING	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
T.I.	FPK	N	12/75	BURN-IN			3690		0	
54H04	14	55/125		EM		N-R	3690		21	
				U		N-R				
T.I.	DIP	N	12/75	BURN-IN			98		0	
54H05	14	55/125		EM		N-R	98		0	
				U		N-R				

INVERTER

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LS TTL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TEMP RING	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
SIGNETICS	E-DIP	N	05/77	FNCT EM	025C		111		0	
74LS04	14	0/70C		U		N-R				
				BURN-IN	125C	N-R	111	1.86E 04	0	
				U		N-R				
				FNCT EM	025C	N-R	111		0	

INVERTER

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PKG/ PART NO	SCR/CL/ PINS	DATE/ TMP/RNG	TEST SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	//
SIGNETICS	5404	DIP	12/75	BURN-IN	U		N-R	42		0		
		14	55/125	U	EM		N-R	42		0		
				U	EM		N-R	40		0		
T.I.	5405	DIP	12/75	BURN-IN	U		N-R	40		8		
		14	55/125	U	EM		N-R	40				
				U	EM		N-R					

INVERTER

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CHOS

MANUFACTURER	PKG/ PART NO	SCR/CL/ PINS	DATE/ TMP/RNG	TEST SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	//
MOTOROLA	112007	E-D11	10/77	OP-DYN	125C		N-R	123	262E 04	1		
		14	40/80C	V	EM		N-R	121		0		
				V	EM		N-R					

LATCH

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PKG/ PART NO	SCR/CL/ PINS	DATE/ TMP/RNG	TEST SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	//
ADVAMICRO-DEV	9314	FPK	12/75	BURN-IN	U		N-R	438		0		
		16	55/125	U	EM		N-R	438		3		
				U	EM		N-R					
FAIRCHILD	9314	FPK	12/75	BURN-IN	U		N-R	51		0		
		16	55/125	U	EM		N-R	51		3		
				U	EM		N-R					
T.I.	5477	FPK	12/75	BURN-IN	U		N-R	2768		0		
		14	55/125	U	EM		N-R	2768		3		
				U	EM		N-R					

LOGIC UNIT

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH-SPEED TTL

MANUFACTURER	PKG/ PART NO	SCR/CL/ PINS	DATE/ TMP/RNG	TEST SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	//
T.I.	54887	FPK	12/75	BURN-IN	U		N-R	160		0		
		14	55/125	U	EM		N-R	160		0		
				U	EM		N-R					

MULTIPLEXER

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LOW-POWER TTL

MANUFACTURER	PKG/ PART NO	SCR/CL/ PINS	DATE/ TMP/RNG	TEST SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	//
ADVAMICRO-DEV	93L12	FPK	12/75	BURN-IN	U		N-R	722		0		
		16	55/125	U	EM		N-R	722		1		
				U	EM		N-R					
FAIRCHILD	93L12	FPK	12/75	BURN-IN	U		N-R	1490		0		
		16	55/125	U	EM		N-R	1490		1		
				U	EM		N-R					

MULTIPLEXER

BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY: BIPOLAR

OPERATIONAL TYPE: TTU

MANUFACTURER PART NO	PKG/ PINS	SCR-CL/ TMP-RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC REF	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY (1)
ADV MICRO DEV. 9309	FPK 16	N -55/125	12/75	BURN-IN	U	N.R.	7674	0	0	
				U	EM	N.R.	7674	20	0	
ADV MICRO DEV. 9312	FPK 16	N -55/125	12/75	BURN-IN	U	N.R.	16330	0	0	
				U	EM	N.R.	16330	57	0	
ADV MICRO DEV. 9322	FPK 16	N -55/125	12/75	BURN-IN	U	N.R.	3961	0	0	
				U	EM	N.R.	3961	3	0	
FAIRCHILD 9309	FPK 16	N -55/125	12/75	BURN-IN	U	N.R.	1011	0	0	
				U	EM	N.R.	1011	11	0	
FAIRCHILD 9312	FPK 16	N -55/125	12/75	BURN-IN	U	N.R.	5875	0	0	
				U	EM	N.R.	5875	67	0	
FAIRCHILD 9322	FPK 16	N -55/125	12/75	BURN-IN	U	N.R.	250	0	0	
				U	EM	N.R.	250	0	0	
ITT 9309	FPK 16	N -55/125	12/75	BURN-IN	U	N.R.	1487	0	0	
				U	EM	N.R.	1487	2	0	
ADV MICRO DEV. 9300	FPK 16	N -55/125	12/75	BURN-IN	U	N.R.	18020	0	0	
				U	EM	N.R.	18020	33	0	
FAIRCHILD 9300	FPK 16	N -55/125	12/75	BURN-IN	U	N.R.	12733	0	0	
				U	EM	N.R.	12733	39	0	
ITT 5495	FPK 14	N -55/125	12/75	BURN-IN	U	N.R.	117	0	0	
				U	EM	N.R.	117	10	0	
T.I. 54164	DIP 14	N -55/125	12/75	BURN-IN	U	N.R.	105	0	0	
				U	EM	N.R.	105	0	0	
T.I. 5495A	FPK 14	N -55/125	12/75	BURN-IN	U	N.R.	5117	0	0	
				U	EM	N.R.	5117	12	0	

ADDER

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR-CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
ITT 5482	FPK A-1 114	-55/125	09/75	SOLDER	260C 952	MS-883 2003	64		0	
ITT 5482	FPK A-1 114	-55/125	09/75	VIS-INS		MS-883 2008	47		0	
				BONDSTR		MS-883 2011	47		0	
ITT 5482	FPK B-1 114	-55/125	09/75	SALTATH	035C 50GMS	MS-883 1009 A	11		0	
ITT 5482	FPK A-1 114	-55/125	09/75	SALTATH	035C 50GMS	MS-883 1009 A	15		0	
ITT 5482	FPK A-1 114	-55/125	09/75	MECHSHK	1.5KG .5HSEC	MS-883 2002 B	15		0	
				6 AXES		MS-883 2007 A	15		0	
				VBVRFQ	100HZ 2KHZ	MS-883 2007 A	15		0	
				20G		MS-883 2001 D	15		0	
				CNSTACC	20KG 6 AXES	MS-883 2001 D	15		0	
				1 MIN E		N.R.	15		0	
				EM		N.R.	15		0	
ITT 5482	FPK B-1 114	-55/125	09/75	MECHSHK	1.5KG .5HSEC	MS-883 2002 B	14		0	
				6 AXES		MS-883 2007 A	14		0	
				VBVRFQ	100HZ 2KHZ	MS-883 2007 A	14		0	
				20G		MS-883 2001 D	14		0	
				CNSTACC	20KG 6 AXES	MS-883 2001 D	14		0	
				1 MIN E		N.R.	14		0	
				EM		N.R.	14		0	
ITT 5482	FPK B-1 114	-55/125	09/75	THRMSHK	-055C 125C	MS-883 1011 B	72		0	
				15CYC		MS-883 1010 C	72		0	
				TEMPCYC	-065C 150C	MS-883 1010 C	72		0	
				10CYC		MS-883 1004	72		0	
				MOIST	-010C 065C	MS-883 1004	72		0	
				982RH		N.R.	72		1	
				EM		N.R.	72		0	
ITT 5482	FPK A-1 114	-55/125	09/75	THRMSHK	-055C 150C	MS-883 1011 B	73		0	
				15CYC		MS-883 1010 C	73		0	
				TEMPCYC	-065C 150C	MS-883 1010 C	73		0	
				10CYC		MS-883 1004	73		0	
				MOIST	-010C 065C	MS-883 1004	73		0	
				982RH		N.R.	73		0	
				EM		N.R.	73		0	
ITT 5482	FPK A-1 114	-55/125	09/75	LEADFTG	8 OZ 90DEG	MS-883 2004 B	64		0	
				6 ARCS		MS-883 1014 A	64		0	
				FINE LK	5 E-8	MS-883 1014 A	64		0	
				60 MIN		MS-883 1014 C	64		0	
				GROSSLK	FLUOR 125C	MS-883 1014 C	64		0	
				3X		N.R.	64		0	
VARIOUS 9304	FPK N 116	-55/125	12/75	X-RAY		N.R.	940		0	
				EM		N.R.	940		42	MPET 636/9 637/9, 638/24

BUFFER

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH-SPEED TTL

MANUFACTURER PART NO	PKG/ PINS	SCR-CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
ITT 74H40	FPK E-DIP 114	0/70C	09/75	SALTATH	035C 50GMS	MS-883 1009 A	57		0	
				INSQ		N.R.	57		0	

BUFFER

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE HIGH SPEED TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	10
ITT 74H40	E-DIP 14	N 0/70C	09/75	THRMSHK	-055C 125C	MS-883	25		0		
					15CYC	1011 B					
				TEMPCYC	-065C 150C	MS-883	25		0		
					10CYC	1010 C					
				MOIST	-010C 065C	MS-883	25		0		
					98ZRH	1004					
ITT 74H40	E-DIP 14	N 0/70C	09/75	EM		N.R.	25		0		
				MECHSHK	1.5KG .5MSEC	MS-883	25		0		
					6 AXES	2002 B					
				VBVRFQ	100HZ 2KHZ	MS-883	25		0		
					20G	2007 A					
				CNSTACC	20KG 6 AXES	MS-883	25		0		
ITT 74H40	DIP 14	N 0/70C	09/75		1 MIN E	2001 D					
				EM		N.R.	25		0		
				LEADFTG	8 OZ 90DEG	MS-883	15		0		
					4 ARCS	2004 B					
				FINE LK	HE 5.E-8	MS-883	15		0		
					60 MIN	1014 A					
ITT 9009	FPK 14	A-1 -55/125	09/75	GROSSLK	FLUOR 125C	MS-883	15		0		
					3X	1014 C					
				SOLDER	260C 95%	MS-883	13		0		
						2003					
				VIS INS		MS-883	13		0		
						2008					
ITT 9009	FPK 14	A-1 -55/125	09/75	BONDSTR		MS-883	13		0		
						2011					
				LEADFTG	8 OZ 90DEG	MS-883	32		0		
					6 ARCS	2004 B					
				FINE LK	HE 5.E-8	MS-883	32		0		
					60 MIN	1014 A					
SIGNETICS 54H40	DIP 14	B-1 -55/125	10/75	GROSSLK	FLUOR 125C	MS-883	32		0		
					3X	1014 C					
				THRMSHK	-055C 125C	MM38510	41		0		
					15CY	1011 B					
				VBVRFQ	20HZ 2KHZ	MM38510	41		0		
					20G	2007 A					
SIGNETICS 54H40	FPK 14	B-1 -55/125	10/75	FINE LK	HE 5.E-8	MM38510	41		0		
					60 MIN	1014 A					
				GROSSLK	FLUOR 125C	MM38510	41		0		
					3X	1014 C					
				EM	025C	MM38510	41		0		
						N.R.					
SIGNETICS 54H40	FPK 14	B-1 -55/125	10/75	THRMSHK	-055C 125C	MM38510	41		0		
					15CY	1011 B					
				VBVRFQ	20HZ 2KHZ	MM38510	41		0		
					20G	2007 A					
				FINE LK	HE 5.E-8	MM38510	41		0		
					60 MIN	1014 A					
SIGNETICS 54H40	FPK 14	B-1 -55/125	10/75	GROSSLK	FLUOR 125C	MM38510	41		0		
					3X	1014 C					
				EM	025C	MM38510	41		0		
						N.R.					

BUFFER

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	10
ITT 5438	DIP 14	N -55/125	09/75	THRMSHK	-055C 125C	MS-883	88		0		
					15CYC	1011 B					
				TEMPCYC	-065C 150C	MS-883	88		0		
					10CYC	1010 C					
				MOIST	-010C 065C	MS-883	88		0		
					98ZRH	1004					
ITT 5438	DIP 14	N -55/125	09/75	EM		N.R.	88		2		

BUFFER

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ THP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	NO.
ITT 5438	DIP 14	N -55/125	09/75	MECHSHK	1.5KG .5MSEC	MS-883	32:		0:		
				V	6 AXES	2002 B			0:		
				VBVRFQ	100HZ 2KHZ	MS-883	32:		0:		
				V	20G	2007 A			0:		
				CNSTACC	20KG 6 AXES	MS-883	32:		0:		
				V	1 MIN E	2001 D			0:		
				EM			32:		0:		
				V		N.R.					
ITT 5440	DIP 14	B-1 -55/125	09/75	SOLDER	260C 95Z	MS-883	143:		0:		
				V		2003					
ITT 5440	DIP 14	C-1 -55/125	09/75	SALTATH	035C 50GMS	MS-883	50:		0:		
				V	MSQ	1009 A					
ITT 5440	DIP 14	C-1 -55/125	09/75	MECHSHK	1.5KG .5MSEC	MS-883	50:		0:		
				V	6 AXES	2002 B			0:		
				VBVRFQ	100HZ 2KHZ	MS-883	50:		0:		
				V	20G	2007 A			0:		
				CNSTACC	20KG 6 AXES	MS-883	50:		0:		
				V	1 MIN E	2001 D			0:		
				EM			50:		0:		
				V		N.R.					
ITT 5440	DIP 14	B-1 -55/125	09/75	MECHSHK	1.5KG .5MSEC	MS-883	50:		0:		
				V	6 AXES	2002 B			0:		
				VBVRFQ	100HZ 2KHZ	MS-883	50:		0:		
				V	20G	2007 A			0:		
				CNSTACC	20KG 6 AXES	MS-883	50:		0:		
				V	1 MIN E	2001 D			0:		
				EM			50:		0:		
				V		N.R.					
ITT 5440	DIP 14	B-1 -55/125	09/75	THRMSHK	-055C 125C	MS-883	72:		0:		
				V	15CYC	1011 B			0:		
				TEMPCYC	-065C 150C	MS-883	72:		0:		
				V	10CYC	1010 C			0:		
				MOIST	-010C 065C	MS-883	72:		0:		
				V	98ZRH	1004			0:		
				EM			72:		0:		
				V		N.R.					
ITT 5440	DIP 14	C-1 -55/125	09/75	THRMSHK	-055C 125C	MS-883	72:		0:		
				V	15CYC	1011 B			0:		
				TEMPCYC	-065C 150C	MS-883	72:		0:		
				V	10CYC	1010 C			0:		
				MOIST	-010C 065C	MS-883	72:		0:		
				V	98ZRH	1004			0:		
				EM			72:		0:		
				V		N.R.					
ITT 5440	DIP 14	C-1 -55/125	09/75	LEADFTG	8 OZ 90DEG	MS-883	45:		0:		
				V	6 ARCS	2004 B			0:		
				FINE LK	HE 5.E-8	MS-883	45:		0:		
				V	60 MIN	1014 A			0:		
				GROSSLK	FLUOR 125C	MS-883	45:		0:		
				V	3X	1014 C			0:		
ITT 5440	DIP 14	B-1 -55/125	09/75	LEADFTG	8 OZ 90DEG	MS-883	143:		0:		
				V	6 ARCS	2004 B			0:		
				FINE LK	HE 5.E-8	MS-883	143:		0:		
				V	60 MIN	1014 A			0:		
				GROSSLK	FLUOR 125C	MS-883	143:		0:		
				V	3X	1014 C			0:		
ITT 7437	DIP 14	N 0/70C	09/75	THRMSHK	-055C 125C	MS-883	64:		0:		
				V	15CYC	1011 B			0:		
				TEMPCYC	-065C 150C	MS-883	64:		0:		
				V	10CYC	1010 C			0:		
				MOIST	-010C 065C	MS-883	64:		0:		
				V	98ZRH	1004			0:		
				EM			64:		0:		
				V		N.R.					
ITT 7440	DIP 14	B-1 0/70C	09/75	SOLDER	260C 95Z	MS-883	38:		0:		
				V		2003					
ITT 7440	E-DIP 14	N 0/70C	09/75	SALTATH	035C 50GMS	MS-883	25:		0:		
				V	MSQ	1009 A					
ITT 7440	DIP 14	B-1 0/70C	09/75	SALTATH	035C 50GMS	MS-883	32:		0:		
				V	MSQ	1009 A					

BUFFER

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC REF	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
ITT 7440	DIP : B-1 14 : 0/70C	09/75	MECHSHK	1.5KG .5HSEC	MS-883	38:	0:			
		V	VBVRFQ	6 AXES	2002 B	38:	0:			
		V		100HZ 2KHZ	MS-883	38:	0:			
		V		20C	2007 A	38:	0:			
		V	CNSTACC	20KG 6 AXES	MS-883	38:	0:			
		V		1 MIN E	2001 D	38:	0:			
		V	EM			38:	0:			
		V			N-R.		0:			
ITT 7440	DIP : N 14 : 0/70C	09/75	THRM SHK	-055C 125C	MS-883	102:	0:			
		V		15CYC	1011 B	102:	0:			
		V	TEMP CYC	-065C 150C	MS-883	102:	0:			
		V		10CYC	1010 C	102:	0:			
		V	MOIST	-010C 065C	MS-883	102:	0:			
		V		98ZRH	1004	102:	0:			
		V	EM			102:	2:			
		V			N-R.		0:			
ITT 7440	E-DIP : N 14 : 0/70C	09/75	THRM SHK	-055C 125C	MS-883	75:	0:			
		V		15CYC	1011 B	75:	0:			
		V	TEMP CYC	-065C 150C	MS-883	75:	0:			
		V		10CYC	1010 C	75:	0:			
		V	MOIST	-010C 065C	MS-883	75:	0:			
		V		98ZRH	1004	75:	0:			
		V	EM			75:	0:			
		V			N-R.		0:			
ITT 7440	DIP : B-1 14 : 0/70C	09/75	THRM SHK	-055C 125C	MS-883	54:	0:			
		V		15CYC	1011 B	54:	0:			
		V	TEMP CYC	-065C 150C	MS-883	54:	0:			
		V		10CYC	1010 C	54:	0:			
		V	MOIST	-010C 065C	MS-883	54:	0:			
		V		98ZRH	1004	54:	0:			
		V	EM			54:	0:			
		V			N-R.		0:			
ITT 7440	DIP : N 14 : 0/70C	09/75	MECHSHK	1.5KG .5HSEC	MS-883	50:	0:			
		V		6 AXES	2002 B	50:	0:			
		V	VBVRFQ	100HZ 2KHZ	MS-883	50:	0:			
		V		20C	2007 A	50:	0:			
		V	CNSTACC	20KG 6 AXES	MS-883	50:	0:			
		V		1 MIN E	2001 D	50:	0:			
		V	EM			50:	0:			
		V			N-R.		0:			
ITT 7440	E-DIP : N 14 : 0/70C	09/75	MECHSHK	1.5KG .5HSEC	MS-883	25:	0:			
		V		6 AXES	2002 B	25:	0:			
		V	VBVRFQ	100HZ 2KHZ	MS-883	25:	0:			
		V		20C	2007 A	25:	0:			
		V	CNSTACC	20KG 6 AXES	MS-883	25:	0:			
		V		1 MIN E	2001 D	25:	0:			
		V	EM			25:	0:			
		V			N-R.		0:			
ITT 7440	E-DIP : N 14 : 0/70C	09/75	LEADFTG	8 OZ 90DEG	MS-883	15:	0:			
		V		6 ARCS	2004 B	15:	0:			
		V	FINE LK	HE 5-E-8	MS-883	15:	0:			
		V		60 MIN	1014 A	15:	0:			
		V	GROSSLK	FLUOR 125C	MS-883	15:	0:			
		V		3X	1014 C		0:			
ITT 7440	DIP : N 14 : 0/70C	09/75	LEADFTG	8 OZ 90DEG	MS-883	50:	0:			
		V		6 ARCS	2004 B	50:	0:			
		V	FINE LK	HE 5-E-8	MS-883	50:	0:			
		V		60 MIN	1014 A	50:	0:			
		V	GROSSLK	FLUOR 125C	MS-883	50:	0:			
		V		3X	1014 C		0:			
ITT 7440	DIP : B-1 14 : 0/70C	09/75	LEADFTG	8 OZ 90DEG	MS-883	64:	0:			
		V		6 ARCS	2004 B	64:	0:			
		V	FINE LK	HE 5-E-8	MS-883	64:	0:			
		V		60 MIN	1014 A	64:	0:			
		V	GROSSLK	FLUOR 125C	MS-883	64:	0:			
		V		3X	1014 C		0:			

COUNTER				ENVIRONMENTAL				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE SCHOTTKY TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	10
FAIRCHILD 9408	DIP 40	N N.R.	05/78	TEMPCYC	-065C 150C	MS-883	42		0		
					10CY	1010 C					
				CNSTACC	30KC 1 AXIS	MS-883	42		0		
					1 MIN E	2001 E					
				FINE LK	HE 5-E-8	MS-883	42		0		
					60 MIN	1014 A					
				CROSSLK	FLUOR 125C	MS-883	42		0		
					3X	1014 C					
				EM		N.R.	42		0		
FAIRCHILD 9408	DIP 40	N N.R.	05/78	MECHSHK	1.5KG .5MSEC	MS-883	42		0		
					6 AXES	2002 B					
				VBVRFQ	20HZ 2KH7	MS-883	42		0		
					20C	2007 A					
				CNSTACC	30KC 1 AXIS	MS-883	42		0		
					1 MIN E	2001 E					
				FINE LK	HE 5-E-8	MS-883	42		0		
					60 MIN	1014 A					
				CROSSLK	FLUOR 125C	MS-883	42		0		
					3X	1014 C					
FAIRCHILD 9408	DIP 40	N N.R.	05/78	THRM SHK	-055C 125C	MS-883	42		0		
					15CY	1011 B					
				TEMPCYC	-065C 150C	MS-883	42		0		
					10CY	1010 C					
				FINE LK	HE 5-E-8	MS-883	42		0		
					60 MIN	1014 A					
				CROSSLK	FLUOR 125C	MS-883	42		0		
					3X	1014 C					
				EM		N.R.	42		0		

COUNTER				ENVIRONMENTAL				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE LOW POWER TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	10
VARIOUS 93L16	DIP 16	N -55/125	12/75	EM		N.R.	1225			5:MFEP 639/1, 640/2, 641/2	
				X-RAY		N.R.	1220		0		
				EM		N.R.	1220			40:MFEP 642/6, 643/33, 738/1	

COUNTER				ENVIRONMENTAL				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	10
ADV MICRO DEV 9316	FPK 16	C-2 -55/125	03/75	VIS INS	10X	MS-883	15		0		
					20X	2008 A					
ADV MICRO DEV 9316	FPK 16	C-2 -55/125	03/75	BONDSTR	1GMS 15BDS	MS-883	10		0		
						2011 D					
ADV MICRO DEV 9316	FPK 16	C-2 -55/125	03/75	SOLDER	260C 95%	MS-883	15		0		
					5 SEC	2003					
ADV MICRO DEV 9316	FPK 16	C-2 -55/125	03/75	LEADFTG	3 OZ 90DEGS	MS-883	15		0		
					3 ARCS	2004 B					
				FINE LK	HE 5-E-8	MS-883	15		0		
					60 MIN	1014 A					
				CROSSLK	FLUOR 125C	MS-883	15		0		
					3X	1014 C					

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCH CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
ADV MICRO DEV 9316	FPK 16	C-2 -55/125	05/75 V	FINE LK	HE 5.E-8	MS-883	15:		0:	
					60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15:		0:	
					3X	1014 C				
				THKMSHK	-0.5C 125C	MS-883	15:		0:	
					15CY	1011 B				
				TEMPCYC	-065C 150C	MS-883	15:		0:	
					10CY	1010 C				
				MOIST	-010C 065C	MS-883	15:		0:	
					98ZRH	1004				
				FINE LK	HE 5.E-8	MS-883	15:		0:	
					60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15:		0:	
					3X	1014 C				
				EM	025C		15:		0:	
						N.R.				
ADV MICRO DEV 9316	FPK 16	C-2 -55/125	05/75 V	FINE LK	HE 5.E-8	MS-883	15:		0:	
					60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15:		0:	
					3X	1014 C				
				MECHSHK	1.5KG .5MSEC	MS-883	15:		0:	
					6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MS-883	15:		0:	
					20C	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	15:		0:	
					1 MIN E	2001 E				
				FINE LK	HE 5.E-8	MS-883	15:		0:	
					60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15:		0:	
					3X	1014 C				
				EM	025C		15:		0:	
						N.R.				
ITT 54192/54193	DIP 16	B-1 -55/125	09/75 V	SALTATH	035C 50GHS	MS-883	45:		0:	
					MSQ	1009 A				
ITT 54192/54193	DIP 16	B-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC	MS-883	15:		0:	
					6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	15:		0:	
					20C	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	15:		0:	
					1 MIN E	2001 D				
				EM			15:		0:	
						N.R.				
ITT 54192/54193	DIP 16	B-1 -55/125	09/75 V	THKMSHK	-055C 125C	MS-883	32:		0:	
					15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	32:		0:	
					10CYC	1010 C				
				MOIST	-010C 065C	MS-883	32:		0:	
					98ZRH	1004				
				EM			32:		0:	
						N.R.				
ITT 54193	DIP 16	B-1 -55/125	09/75 V	SOLDER	260C 95X	MS-883	15:		0:	
						2003				
ITT 54193	DIP 16	B-1 -55/125	09/75 V	LEADFTG	8 OZ 90DEG	MS-883	47:		0:	
					6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	47:		0:	
					60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	47:		0:	
					3X	1014 C				
ITT 5490	DIP 14	C-1 -55/125	09/75 V	SALTATH	035C 50GHS	MS-883	25:		0:	
					MSQ	1009 A				
ITT 5490	DIP 14	C-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC	MS-883	25:		0:	
					6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	25:		0:	
					20C	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25:		0:	
					1 MIN E	2001 D				
				EM			25:		0:	
						N.R.				

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ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
ITT	5490	DIP	C-1	09/75	THRNSHK	055C 125C	MS-883	25		0	
		14	-55/125	V	15CYC		1011 B				
				V	TEMPCYC	065C 150C	MS-883	25		0	
				V	10CYC		1010 C				
				V	MOIST	010C 065C	MS-883	25		0	
				V	982RH		1004				
				V	EM			25		0	
				V			N.R.				
ITT	5490	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	15		0	
		14	-55/125	V	6 ARCS		2004 B				
				V	FINE LK	HE 5-E-8	MS-883	15		0	
				V	60 MIN		1014 A				
				V	CROSSLK	FLUOR 125C	MS-883	15		0	
				V	3X		1014 C				
ITT	5492	DIP	C-1	09/75	SALTATM	035C 50CMS	MS-883	25		0	
		14	-55/125	V	NSQ		1009 A				
ITT	5492	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	25		0	
		14	-55/125	V	6 AXES		2002 B				
				V	VBRFQ	100HZ 2KHZ	MS-883	25		0	
				V	20C		2007 A				
				V	CNSTACC	20KG 6 AXES	MS-883	25		0	
				V	1 MIN E		2001 D				
				V	EM			25		0	
				V			N.R.				
ITT	5492	DIP	C-1	09/75	THRNSHK	055C 125C	MS-883	43		0	
		14	-55/125	V	15CYC		1011 B				
				V	TEMPCYC	065C 150C	MS-883	43		0	
				V	10CYC		1010 C				
				V	MOIST	010C 065C	MS-883	43		0	
				V	982RH		1004				
				V	EM			43		0	
				V			N.R.				
ITT	5492	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	45		0	
		14	-55/125	V	6 ARCS		2004 B				
				V	FINE LK	HE 5-E-8	MS-883	45		0	
				V	60 MIN		1014 A				
				V	CROSSLK	FLUOR 125C	MS-883	45		0	
				V	3X		1014 C				
ITT	5493	FPK	A-1	09/75	SOLDER	260C 95%	MS-883	64		0	
		16	-55/125	V			2003				
ITT	5493	FPK	A-1	09/75	VIS INS		MS-883	32		0	
		16	-55/125	V			2008				
				V	BONDSTR		MS-883	32		0	
				V			2011				
ITT	5493	FPK	A-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	79		0	
		16	-55/125	V	6 ARCS		2004 B				
				V	FINE LK	HE 5-E-8	MS-883	79		0	
				V	60 MIN		1014 A				
				V	CROSSLK	FLUOR 125C	MS-883	79		0	
				V	3X		1014 C				
ITT	5493	FPK	B-1	12/75	MECHSHK	1.5KG .5MSEC	MM38510	43		0	
		14	-55/125	V	6 AXES		2002 B				
				V	VBRFQ	20HZ 2KHZ	MM38510	43		0	
				V	20C		2007 A				
				V	CNSTACC	30KG 6 AXES	MM38510	43		0	
				V	1 MIN E		2001 E				
				V	FINE LK	RADIS 5-E-8	MM38510	43		0	
				V	12 MIN		1014 B				
				V	CROSSLK	FLUOR 125C	MM38510	43		0	
				V	3X		1014 C				
ITT	5493	FPK	B-1	12/75	SALTATM	035C 25CMS	MM38510	25		0	
		14	-55/125	V	NSQ		1009 A				
ITT	5493	FPK	B-1	12/75	VIS INS	80X	MM38510	22		0	
		14	-55/125	V			2014				
ITT	5493	FPK	B-1	12/75	BONDSTR	1.8CMS 22BDS	MM38510	10		0	
		14	-55/125	V			2011 D				
ITT	5493	FPK	B-1	12/75	SOLDER	260C 95%	MM38510	22		0	
		14	-55/125	V	5 SEC		2003				

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY				OPERATIONAL TYPE				TTL			
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TEMP ZHC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY	
ITT	5493	FPK B-1	12/75	LEADFIG	3 OZ 90DECS	MM38510	22		0		
		14 -55/125	V	3 ARCS		2004 B			0		
			V	FINE LK	RADIS 5-E-8	MM38510	22		0		
			V	12 MIN		1014 B			0		
			V	CROSSLK	FLUOR 125C	MM38510	22		0		
			V	3X		1014 C			0		
ITT	5493	FPK B-1	12/75	THRM SHK	-055C 125C	MM38510	42		0		
		14 -55/125	V	15CY		1011 B			0		
			V	TEMP CYC	-065C 150C	MM38510	42		0		
			V	10CY		1010 C			0		
			V	MOIST	-010C 065C	MM38510	42		0		
			V	982RH		1004			0		
			V	FINE LK	RADIS 5-E-8	MM38510	42		0		
			V	12 MIN		1014 B			0		
			V	CROSSLK	FLUOR 125C	MM38510	42		0		
			V	3X		1014 C			0		
ITT	74161	DIP N	09/75	VIS INS		MS-883	15		0		
		16 0/70C	V			2008			0		
			V	BONDSTR		MS-883	15		0		
			V			2011			0		
ITT	74161	DIP N	09/75	THRM SHK	-055C 125C	MS-883	45		0		
		16 0/70C	V	15CYC		1011 B			0		
			V	TEMP CYC	-065C 150C	MS-883	45		0		
			V	10CYC		1010 C			0		
			V	MOIST	-010C 065C	MS-883	45		0		
			V	982RH		1004			0		
			V	EN		N-R			1		
ITT	74161	DIP N	09/75	MECH SHK	1.5KG 5MSEC	MS-883	15		0		
		16 0/70C	V	6 AXES		2002 B			0		
			V	VBRFQ	100HZ 2KHZ	MS-883	15		0		
			V	20G		2007 A			0		
			V	CNSTACC	20KG 6AXES	MS-883	15		0		
			V	1 MIN E		2001 D			0		
			V	EN		N-R			0		
ITT	74161	DIP N	09/75	LEADFIG	8 OZ 90DEG	MS-883	15		0		
		16 0/70C	V	6 ARCS		2004 B			0		
			V	FINE LK	HE 5-E-8	MS-883	15		0		
			V	60 MIN		1014 A			0		
			V	CROSSLK	FLUOR 125C	MS-883	15		0		
			V	3X		1014 C			0		
ITT	7490	E-DIP N	09/75	AUTOCLV	15PSIG 100C	N-R	102		0		
		14 0/70C	V	1002RH		N-R			0		
ITT	7490	E-DIP N	09/75	TEMP CYC	-065C 150C	MS-883	102		0		
		14 0/70C	V	10CYC		1010 C			0		
			V	EN		N-R			0		
ITT	9316	FPK B-1	09/75	SOLDER	260C 95%	MS-883	15		0		
		14 -55/125	V			2003			0		
ITT	9316	FPK B-1	09/75	SALTATH	035C 50CMS	MS-883	15		0		
		16 -55/125	V	MSQ		1009 A			0		
ITT	9316	FPK B-1	09/75	MECH SHK	1.5KG 5MSEC	MS-883	60		0		
		16 -55/125	V	6 AXES		2002 B			0		
			V	VBRFQ	100HZ 2KHZ	MS-883	60		0		
			V	20G		2007 A			0		
			V	CNSTACC	20KG 6AXES	MS-883	60		0		
			V	1 MIN E		2001 D			0		
			V	EN		N-R			0		
ITT	9316	FPK B-1	09/75	THRM SHK	-055C 125C	MS-883	60		0		
		16 -55/125	V	15CYC		1011 B			0		
			V	TEMP CYC	-065C 150C	MS-883	60		0		
			V	10CYC		1010 C			0		
			V	MOIST	-010C 065C	MS-883	60		0		
			V	982RH		1004			0		
			V	EN		N-R			0		

COUNTER

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //	
ITT 9316	FPK B-1 16	-55/125	09/75	LEADPTC	8 OZ 90DEG	MS-883	65				
					16 ARCS	2004 B					
				FINE LE	ME 5-E-8	MS-883	65				
					60 MIN	1014 A					
				CROSSLE	FLUOR 125C	MS-883	65				
					3X	1014 C					
SIGNETICS 54163	FPK B-1 16	-55/125	01/75	THRMSTR	-055C 125C	MM38510	42				
					15CYC	1011 B					
				TEMPCTC	-065C 150C	MM38510	42				
					10CYC	1010 C					
				NOIST	-010C 065C	MM38510	42				
					192HR	1004					
				FINE LE	ME 5-E-8	MM38510	42				
					60 MIN	1014 A					
				CROSSLE	FLUOR 125C	MM38510	42				
				3X	1014 C						
				EM							
						W.R.					
SIGNETICS 54163	DIP B-1 16	-55/125	01/75	THRMSTR	-055C 125C	MM38510	10				
					15CY	1011 B					
				TEMPCTC	20HZ 2KHZ	MM38510	10				
					20C	2007 A					
				FINE LE	ME 5-E-8	MM38510	10				
					60 MIN	1014 A					
				CROSSLE	FLUOR 125C	MM38510	10				
					3X	1014 C					
				EM	025C	MM38510	10				
				W.R.							
SIGNETICS 54163	DIP B-1 16	-55/125	01/75	THRMSTR	-055C 125C	MM38510	43				
					15CY	1011 B					
				TEMPCTC	20HZ 2KHZ	MM38510	43				
					20C	2007 A					
				FINE LE	ME 5-E-8	MM38510	43				
					60 MIN	1014 A					
				CROSSLE	FLUOR 125C	MM38510	41				
					3X	1014 C					
				EM	025C	MM38510	41				
				W.R.							
SIGNETICS 8293	DIP B 14	-55/125	12/75	X-RAY			499				
				EM			499				30 REF 646/21. (645/65, 646/3)
VARIOUS 5490A	DIP B 14	-55/125	12/75	X-RAY			1998				
				EM			1998				138 REF 647/68. (646/65, 649/1)

COUNTER

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE ECL						
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLDS	FAILURE SUMMARY //
FAIRCHILD 10010	DIP 16	B -55/125	01/77	THRMSTR	-055C 125C	MM38510	26			
					15CY	1011 B				
				TEMPCTC	-065C 150C	MM38510	26			
					10CY	1010 C				
				HERNET			26			

COUNTER

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE FCL

MANUFACTURER PART NO	PKG/ PINS	SCA CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD 10010	DIP : N 16 : -55/125	01/77	MECHSHK : 1.5KG .5MSEC	: 6 AXES	MM38510	26:	0:			
			VBVRFQ : 20HZ 2KHZ	: 20G	2002 B	26:	0:			
			CNSTACC : 30KG 6 AXES	: 1 MIN E	MM38510	26:	0:			
			HERMET		2001 E	26:	0:			
					N.R.					
FAIRCHILD 10010	DIP : N 16 : -55/125	01/77	THRMESHK : -055C 125C	: 15CY	MM38510	50:	0:			
			TEMPCYC : -065C 150C	: 10CY	1011 B	50:	0:			
			HERMET		1010 C	50:	0:			
					N.R.					
FAIRCHILD 10010	DIP : N 16 : -55/125	01/77	MECHSHK : 1.5KG .5MSEC	: 6 AXES	MM38510	50:	0:			
			VBVRFQ : 20HZ 2KHZ	: 20G	2002 B	50:	0:			
			TEMPCYC : -065C 150C	: 10CY	MM38510	50:	0:			
			HERMET		1010 C	50:	0:			
					N.R.					
FAIRCHILD 10016	E-DIP : N 16 : 0/70C	01/77	THRMESHK : -055C 125C	: 15CY	MM38510	27:	0:			
			TEMPCYC : -065C 150C	: 10CY	1011 B	27:	0:			
			HERMET		1010 C	27:	0:			
					N.R.					
FAIRCHILD 10016	E-DIP : N 16 : 0/70C	01/77	AUTOCCLV : 15PSIG121C			50:	0:			
			EM		N.R.	50:	0:			
					N.R.					
FAIRCHILD 11C05	DIP : N 14 : -55/125	01/77	THRMESHK : -055C 125C	: 15CY	MM38510	60:	0:			
			TEMPCYC : -065C 150C	: 10CY	1011 B	60:	0:			
			HERMET		1010 C	60:	0:			
					N.R.					
FAIRCHILD 11C05	DIP : N 14 : -55/125	01/77	MECHSHK : 1.5KG .5MSEC	: 6 AXES	MM38510	60:	0:			
			VBVRFQ : 20HZ 2KHZ	: 20G	2002 B	60:	0:			
			CNSTACC : 30KG 6 AXES	: 1 MIN E	MM38510	60:	0:			
			HERMET		2001 E	60:	0:			
					N.R.					
FAIRCHILD 11C05	DIP : N 14 : -55/125	01/77	THRMESHK : -055C 125C	: 15CY	MM38510	30:	0:			
			TEMPCYC : -065C 150C	: 10CY	1011 B	30:	0:			
			HERMET		1010 C	30:	1:MFEF 681/1			
					N.R.					
FAIRCHILD 11C05	DIP : N 14 : -55/125	01/77	MECHSHK : 1.5KG .5MSEC	: 6 AXES	MM38510	30:	0:			
			VBVRFQ : 20HZ 2KHZ	: 20G	2002 B	30:	0:			
			CNSTACC : 30KG 6 AXES	: 1 MIN E	MM38510	30:	0:			
			HERMET		2001 E	30:	0:			
					N.R.					

DECODER

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

:	MANUFACTURER :	PKG/ :	SCA CL/ :	DATE/ :	TEST :	STRESS :	SPEC. :	NO. :	DEVICE :	NO. :	FAILURE :
:	PART NO :	PINS :	TMP RRG :	SRC :	TYPE :	LEVEL :	REF. :	TEST :	HOURS :	FLD :	SUMMARY /# :
:	ITT :	FPK :	B-1 :	09/75 :	SALTATM :	035C 50GMS :	MS-883 :	15 :	:	0 :	:
:	5442 :	16 :	-55/125 :	V :	:	M50 :	1009 A :	:	:	:	:

DECODER

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR			OPERATIONAL TYPE TTL								
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RNG	TEST SRC	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
ITT	5442	FPK B-1 16	09/75 -55/125	MECHSHK V	1.5KG .5MSEC 6 AXES	MS-883 2002 B	10:		0:		
				VBVRFQ	100HZ 2KHZ	MS-883	10:		0:		
				V	20G	2007 A					
				CNSTACC	20KG 6 AXES	MS-883	10:		0:		
				V	1 MIN E	2001 D					
				EM			10:		0:		
				V		N.R.					
ITT	5442	FPK B-1 16	09/75 -55/125	THRMSHK V	-055C 125C 15CYC	MS-883 1011 B	72:		0:		
				TFMPCYC	-065C 150C	MS-883	72:		0:		
				V	10CYC	1010 C					
				MOIST	-010C 065C	MS-883	72:		0:		
				V	98ZRH	1004					
				EM	0		72:		0:		
				V		N.R.					
ITT	9301	DIP C-1 16	09/75 -55/125	SALTATM V	035C 50GMS MSQ	MS-883 1009 A	25:		0:		
ITT	9301	DIP C-1 16	09/75 -55/125	MECHSHK V	1.5KG .5MSEC 6 AXES	MS-883 2002 B	25:		0:		
				VBVRFQ	100HZ 2KHZ	MS-883	25:		0:		
				V	20G	2007 A					
				CNSTACC	20KG 6 AXES	MS-883	25:		0:		
				V	1 MIN E	2001 D					
				EM			25:		0:		
				V		N.R.					
ITT	9301	DIP C-1 16	09/75 -55/125	THRMSHK V	-055C 125C 15CYC	MS-883 1011 B	50:		0:		
				TFMPCYC	-065C 150C	MS-883	50:		0:		
				V	10CYC	1010 C					
				MOIST	-010C 065C	MS-883	50:		0:		
				V	98ZRH	1004					
				EM			50:		0:		
				V		N.R.					
ITT	9301	DIP C-1 16	09/75 -55/125	LEADFTG V	8 OZ 90DEG 6 ARCS	MS-883 2004 B	15:		0:		
				FINE LK	HE 5.E-8	MS-883	15:		0:		
				V	60 MIN	1014 A					
				GROSSLK	FLUOR 125C	MS-883	15:		0:		
				V	3X	1014 C					
ITT	9311	DIP B-1 24	09/75 N.R.	SOLDER V	260C 95Z	MS-883 2003	17:		0:		
ITT	9311	DIP B-1 24	09/75 N.R.	LEADFTG V	8 OZ 90DEG 6 ARCS	MS-883 2004 B	32:		0:		
				FINE LK	HE 5.E-8	MS-883	32:		0:		
				V	60 MIN	1014 A					
				GROSSLK	FLUOR 125C	MS-883	32:		0:		
				V	3X	1014 C					

DEC-DEMUX

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR			OPERATIONAL TYPE ECL								
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RNG	TEST SRC	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
FAIRCHILD	10161	DIP N 16	01/77 N.R.	THRMSHK V	-055C 125C 15CY	MM38510 1011 B	22:		0:		
				TFMPCYC	-065C 150C	MM38510	22:		0:		
				V	10CY	1010 C					
				HERMET			22:		0:		
				V		N.R.					
FAIRCHILD	10161	E-DIP N 16	01/77 N.R.	AUTOCLV V	15PSIG121C FM		50:		0:		
				V		N.R.	50:		0:		
				V		N.R.					
FAIRCHILD	10161	E-DIP N 16	01/77 N.R.	AUTOCLV V	15PSIG121C EM		50:		0:		
				V		N.R.	50:		0:		
				V		N.R.					

FLIP FLOP

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR			OPERATIONAL TYPE LOW POWER TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
ADV MICRO DEV 26L02	DIP : N 16	: -55/125	: 12/75	: X-RAY : U : EM : U		: N.R. : N.R.	: 750: : 750:		: 0: : 4:MFEF 650/1	
NATIONAL 54L73	DIP : N 14	: -55/125	: 12/75	: THRMSHK : V : TEMPCYC : V : MOIST : V : EM : V	: 000C 100C : 15CY : -065C 150C : 10CY : -010C 065C : 98%RH	: MS-883 : 1011 A : MS-883 : 1010 C : MS-883 : 1004 : N.R.	: 15: : 15: : 15: : 15: : 15:		: 0: : 0: : 0: : 0: : 0: : 0:	
NATIONAL 54L73	DIP : N 14	: -55/125	: 12/75	: MECHSHK : V : VBVRFQ : V : CNSTACC : V : EM : V	: 1.5KG .5MSEC : 6 AXES : 20HZ 2KHZ : 50G : 30KG 6 AXES : 1 MIN E	: MS-883 : 2002 B : MS-883 : 2007 B : MS-883 : 2001 E : N.R.	: 15: : 15: : 15: : 15: : 15:		: 0: : 0: : 0: : 0: : 0: : 0:	
NATIONAL 54L74	DIP : N 14	: -55/125	: 07/76	: MECHSHK : V : VBVRFQ : V : CNSTACC : V : EM : V	: 1.5KG .5MSEC : 6 AXES : 20HZ 2KHZ : 50G : 30KG 6 AXES : 1 MIN E	: MS-883 : 2002 B : MS-883 : 2007 B : MS-883 : 2001 E : N.R.	: 5: : 5: : 5: : 5: : 5:		: 0: : 0: : 0: : 0: : 0: : 0:	
VARIOUS 54L73	DIP : N 14	: -55/125	: 12/75	: X-RAY : U : EM : U		: N.R. : N.R.	: 339: : 339:		: 0: : 24:MFEF 651/13, : 652/9,653/2	

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR			OPERATIONAL TYPE HIGH SPEED TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
ITT 74H73	DIP : C-1 14	: 0/70C	: 09/75	: SALTATM : V : MSQ	: 035C 50GMS	: MS-883 : 1009 A	: 26: : 26:		: 0: : 0:	
ITT 74H73	DIP : C-1 14	: 0/70C	: 09/75	: MECHSHK : V : VBVRFQ : V : CNSTACC : V : EM : V	: 1.5KG .5MSEC : 6 AXES : 100HZ 2KHZ : 20G : 20KG 6 AXES : 1 MIN E	: MS-883 : 2002 B : MS-883 : 2007 A : MS-883 : 2001 D : N.R.	: 45: : 45: : 45: : 45: : 45:		: 0: : 0: : 0: : 0: : 0: : 0:	
ITT 74H73	DIP : C-1 14	: 0/70C	: 09/75	: THRMSHK : V : TEMPCYC : V : MOIST : V : EM : V	: -055C 125C : 15CYC : -065C 150C : 10CYC : -010C 065C : 98%RH	: MS-883 : 1011 B : MS-883 : 1010 C : MS-883 : 1004 : N.R.	: 50: : 50: : 50: : 50: : 50:		: 0: : 0: : 0: : 0: : 0: : 0:	
ITT 74H73	DIP : C-1 14	: 0/70C	: 09/75	: LEADFIG : V : FINE LV : V : GROSSLK	: 8.0Z 90DEG : 6 ARCS : HE 5.E-8 : 60 MIN : FLUOR 125C	: MS-883 : 2004 B : MS-883 : 1014 A : MS-883 : 1014 C	: 45: : 45: : 45: : 45:		: 0: : 0: : 0: : 0:	
ITT 9000	DIP : C-1 14	: -55/125	: 09/75	: SALTATM : V : MSQ	: 035C 50GMS	: MS-883 : 1009 A	: 72: : 72:		: 0: : 0:	

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE HIGH SPEED TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TMP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY	#
ITT	9000	DIP :C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	72:		0:		
		14 :-55/125	V	:6 AXES		2002 B					
			V	VBVRFQ	100HZ 2KHZ	MS-883	72:		0:		
			V	:20G		2007 A					
			V	CNSTACC	20KG 6 AXES	MS-883	72:		0:		
			V	:1 MIN E		2001 D					
			V	:EM			72:		0:		
			V			N.R.					
ITT	9000	DIP :C-1	09/75	THRMCHK	-055C 125C	MS-883	72:		0:		
		14 :-55/125	V	:15CYC		1011 B					
			V	TEMPCYC	-065C 150C	MS-883	72:		0:		
			V	:10CYC		1010 C					
			V	:NOIST	-010C 065C	MS-883	72:		0:		
			V	:98ZRH		1004					
			V	:EM			72:		0:		
			V			N.R.					
ITT	9000	DIP :C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	44:		0:		
		14 :-55/125	V	:6 ARCS		2004 B					
			V	FINE LK	HE 5-E-8	MS-883	44:		0:		
			V	:60 MIN		1014 A					
			V	GROSSLK	FLUOR 125C	MS-883	44:		0:		
			V	:3X		1014 C					
ITT	9001	DIP :C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	44:		0:		
		14 :-55/125	V	:6 ARCS		2004 B					
			V	FINE LK	HE 5-E-8	MS-883	44:		0:		
			V	:60 MIN		1014 A					
			V	GROSSLK	FLUOR 125C	MS-883	44:		0:		
			V	:3X		1014 C					
SIGNETICS	54H103	FPK :B-1	05/75	THRMCHK	-055C 125C	MM38510	41:		0:		
		14 :-55/125	Q	:15CY		1011 B					
			Q	VBVRFQ	20HZ 2KHZ	MM38510	41:		0:		
			Q	:20G		2007 A					
			Q	FINE LK	HE 5-E-8	MM38510	41:		0:		
			Q	:60 MIN		1014 A					
			Q	GROSSLK	FLUOR 125C	MM38510	41:		0:		
			Q	:3X		1014 C					
			Q	:EM	:025C	MM38510	41:		0:		
			Q			N.R.					
SIGNETICS	54H103	DIP :B-1	05/75	THRMCHK	-055C 125C	MM38510	57:		0:		
		14 :-55/125	Q	:15CY		1011 B					
			Q	VBVRFQ	20HZ 2KHZ	MM38510	57:		0:		
			Q	:20G		2007 A					
			Q	FINE LK	HE 5-E-8	MM38510	57:		0:		
			Q	:60 MIN		1014 A					
			Q	GROSSLK	FLUOR 125C	MM38510	57:		2:		
			Q	:3X		1014 C					
			Q	:EM	:025C	MM38510	55:		0:		
			Q			N.R.					
SIGNETICS	54H76	DIP :B-1	06/75	THRMCHK	-055C 125C	MM38510	41:		0:		
		16 :-55/125	Q	:15CY		1011 B					
			Q	VBVRFQ	20HZ 2KHZ	MM38510	41:		0:		
			Q	:20G		2007 A					
			Q	FINE LK	HE 5-E-8	MM38510	41:		2:		
			Q	:60 MIN		1014 A					
			Q	GROSSLK	FLUOR 125C	MM38510	39:		1:		
			Q	:3X		1014 C					
			Q	:EM	:025C	MM38510	38:		0:		
			Q			N.R.					
SIGNETICS	54H76	DIP :B-1	07/75	THRMCHK	-055C 125C	MM38510	65:		0:		
		16 :-55/125	Q	:15CY		1011 B					
			Q	VBVRFQ	20HZ 2KHZ	MM38510	65:		0:		
			Q	:20G		2007 A					
			Q	FINE LK	HE 5-E-8	MM38510	65:		2:		
			Q	:60 MIN		1014 A					
			Q	GROSSLK	FLUOR 125C	MM38510	63:		1:		
			Q	:3X		1014 C					
			Q	:EM	:025C	MM38510	62:		0:		
			Q			N.R.					

FLIP FLOP

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	12/75	X-RAY			492		0	
9LS109	16	-55/125	U	EM		N.R.	492		2	MFEF 657/2
			U			N.R.				

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BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ADV MICRO DEV 2602	DIP	N	12/75	X-RAY			8275		0	
	16	-55/125	U	EM		N.R.	8275		14	MFEF 654/2, 655/1,656/11
			U			N.R.				
FAIRCHILD 9601	DIP	N	04/75	THRMSHK	000C 100C	MS-883	59		0	
	14	-55/125	V	15CY		1011 A				
				TEMPCYC	-065C 150C	MS-883	59		0	
				10CY		1010 C				
				MOIST	-010C 065C	MS-883	59		0	
				982RH		1004				
				EM			59		0	
						N.R.				
FAIRCHILD 9601	DIP	N	04/75	MECHSHK	1.5KG .5HSEC	MS-883	59		0	
	14	-55/125	V	6 AXES		2002 B				
				VBVRFQ	20HZ 2KHZ	MS-883	59		0	
				50G		2007 B				
				CNSTACC	30KG 6 AXES	MS-883	59		0	
				1 MIN E		2001 E				
				EM			59		2	
						N.R.				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	15		0	
54121	14	-55/125	V			2003				
ITT	FPK	A-1	09/75	SOLDFR	260C 95%	MS-883	32		0	
54121	14	-55/125	V			2003				
ITT	FPK	A-1	09/75	VIS INS		MS-883	15		0	
54121	14	-55/125	V			2008				
				BONDSTR		MS-883	15		0	
				V		2011				
ITT	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	150		0	
54121	14	-55/125	V	MSQ		1009 A				
ITT	FPK	A-1	09/75	SALTATM	035C 50GMS	MS-883	15		0	
54121	14	-55/125	V	MSQ		1009 A				
ITT	DIP	B-1	09/75	MECHSHK	1.5KG .5HSEC	MS-883	25		0	
54121	14	-55/125	V	6 AXES		2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	25		0	
				20G		2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25		0	
				1 MIN E		2001 D				
				EM			25		0	
						N.R.				
ITT	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	47		0	
54121	14	-55/125	V	15CYC		1011 B				
				TEMPCYC	-065C 150C	MS-883	47		0	
				10CYC		1010 C				
				MOIST	-010C 065C	MS-883	47		0	
				982RH		1004				
				EM			47		0	
						N.R.				
ITT	FPK	A-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	32		0	
54121	14	-55/125	V	6 ARCS		2004 B				
				FINE LK	4E 5.E-8	MS-883	32		0	
				60 MIN		1014 A				
				GROSSLK	FLUOR 125C	MS-883	32		0	
				3X		1014 C				

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BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TMP RNG	SEC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY	#
ITT	54121	DIP B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	65:		0:		
		14 -55/125	V		6 ARCS	2004 B					
				FINE LK	HE 5.E-8	MS-883	65:		0:		
			V		60 MIN	1014 A					
				GROSSLK	FLUOR 125C	MS-883	65:		0:		
			V		3X	1014 C					
ITT	5470	DIP B-1	09/75	SOLDER	260C 95%	MS-883	67:		0:		
		14 -55/125	V			2003					
ITT	5470	DIP B-1	09/75	SALTATM	035C 50GMS	MS-883	37:		0:		
		14 -55/125	V		MSQ	1009 A					
ITT	5470	DIP B-1	09/75	MECHSHK	1.5KG .5HSEC	MS-883	45:		0:		
		14 -55/125	V		6 AXES	2002 B					
			V	VBVRFQ	100HZ 2KHZ	MS-883	45:		0:		
					20G	2007 A					
			V	CNSTACC	20KG 6 AXES	MS-883	45:		0:		
					1 MIN E	2001 D					
			V	EM			45:		0:		
						N.R.					
ITT	5470	DIP B-1	09/75	THRMSHK	-055C 125C	MS-883	85:		0:		
		14 -55/125	V		15CYC	1011 B					
			V	TEMPCYC	-065C 150C	MS-883	85:		0:		
					10CYC	1010 C					
			V	MOIST	-010C 065C	MS-883	85:		0:		
					982RH	1004					
			V	EM			85:		0:		
						N.R.					
ITT	5470	DIP B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	75:		0:		
		14 -55/125	V		6 ARCS	2004 B					
				FINE LK	HE 5.E-8	MS-883	75:		0:		
			V		60 MIN	1014 A					
				GROSSLK	FLUOR 125C	MS-883	75:		0:		
			V		3X	1014 C					
ITT	5472	DIP B-1	09/75	SOLDER	260C 95%	MS-883	45:		0:		
		14 -55/125	V			2003					
ITT	5472	DIP C-1	09/75	SALTATM	035C 50GMS	MS-883	25:		0:		
		14 -55/125	V		MSQ	1009 A					
ITT	5472	DIP B-1	09/75	SALTATM	035C 50GMS	MS-883	15:		0:		
		14 -55/125	V		MSQ	1009 A					
ITT	5472	DIP C-1	09/75	MECHSHK	1.5KG .5HSEC	MS-883	25:		0:		
		14 -55/125	V		6 AXES	2002 B					
			V	VBVRFQ	100HZ 2KHZ	MS-883	25:		0:		
					20G	2007 A					
			V	CNSTACC	20KG 6 AXES	MS-883	25:		0:		
					1 MIN E	2001 D					
			V	EM			25:		0:		
						N.R.					
ITT	5472	DIP B-1	09/75	MECHSHK	1.5KG .5HSEC	MS-883	60:		0:		
		14 -55/125	V		6 AXES	2002 B					
			V	VBVRFQ	100HZ 2KHZ	MS-883	60:		0:		
					20G	2007 A					
			V	CNSTACC	20KG 6 AXES	MS-883	60:		0:		
					1 MIN E	2001 D					
			V	EM			60:		0:		
						N.R.					
ITT	5472	DIP B-1	09/75	THRMSHK	-055C 125C	MS-883	59:		0:		
		14 -55/125	V		15CYC	1011 B					
			V	TEMPCYC	-065C 150C	MS-883	59:		0:		
					10CYC	1010 C					
			V	MOIST	-010C 065C	MS-883	59:		0:		
					982RH	1004					
			V	EM			59:		0:		
						N.R.					
ITT	5472	DIP C-1	09/75	THRMSHK	-055C 125C	MS-883	25:		0:		
		14 -55/125	V		15CYC	1011 B					
			V	TEMPCYC	-065C 150C	MS-883	25:		0:		
					10CYC	1010 C					
			V	MOIST	-010C 065C	MS-883	25:		0:		
					982RH	1004					
			V	EM			25:		0:		
						N.R.					

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BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SKN CL/ TMP ANG	DATE/ SKC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	//
ITT 5472	DIP B-1 14	-55/125	09/75	LEADFTG V	8 OZ 90DEG 6 ARCS	MS-883 2004 B	45:		0:		
				FINE LK HE	5-E-8	MS-883	45:		0:		
				60 MIN V		1014 A					
				GROSSLK FLUOR 125C		MS-883	45:		0:		
				3X V		1014 C					
ITT 5472	DIP C-1 14	-55/125	09/75	LEADFTG V	8 OZ 90DEG 6 ARCS	MS-883 2004 B	45:		0:		
				FINE LK HE	5-E-8	MS-883	45:		0:		
				60 MIN V		1014 A					
				GROSSLK FLUOR 125C		MS-883	45:		0:		
				3X V		1014 C					
ITT 5473	DIP B-1 14	-55/125	09/75	SOLDER V	260C 95%	MS-883 2003	67:		0:		
ITT 5473	FPK A-1 14	-55/125	09/75	SOLDER V	260C 95%	MS-883 2003	32:		0:		
ITT 5473	TPK A-1 14	-55/125	09/75	VIS INS V		MS-883 2008	32:		0:		
				SONDSTR V		MS-883 2011	32:		0:		
ITT 5473	DIP C-1 14	-55/125	09/75	SALTATH V	035C 50GHS MSQ	MS-883 1009 A	50:		0:		
ITT 5473	DIP B-1 14	-55/125	09/75	SALTATH V	035C 50GHS MSQ	MS-883 1009 A	15:		0:		
ITT 5473	FPK A-1 14	-55/125	09/75	SALTATH V	035C 50GHS MSQ	MS-883 1009 A	51:		0:		
ITT 5473	FPK A-1 14	-55/125	09/75	MECHSHK V	1.5KG .5MSEC 6 AXES	MS-883 2002 B	530:		0:		
				VBRFQ 100HZ 2KHZ		MS-883 2007 A	530:		0:		
				20G V		2007 A					
				CNSTACC 20KG 6 AXES		MS-883	530:		0:		
				1 MIN E V		2001 D					
				EM V			530:		0:		
						N-R.					
ITT 5473	DIP C-1 14	-55/125	09/75	MECHSHK V	1.5KG .5MSEC 6 AXES	MS-883 2002 B	50:		0:		
				VBRFQ 100HZ 2KHZ		MS-883	50:		0:		
				20G V		2007 A					
				CNSTACC 20KG 6 AXES		MS-883	50:		0:		
				1 MIN E V		2001 D					
				EM V			50:		0:		
						N-R.					
ITT 5473	DIP B-1 14	-55/125	09/75	MECHSHK V	1.5KG .5MSEC 6 AXES	MS-883 2002 B	54:		0:		
				VBRFQ 100HZ 2KHZ		MS-883	54:		0:		
				20G V		2007 A					
				CNSTACC 20KG 6 AXES		MS-883	54:		0:		
				1 MIN E V		2001 D					
				EM V			54:		0:		
						N-R.					
ITT 5473	DIP B-1 14	-55/125	09/75	THRM SHK V	-055C 125C 15CYC	MS-883 1011 B	60:		0:		
				TEMP CYC V	-065C 150C 10CYC	MS-883 1010 C	60:		0:		
				MOIST V	-010C 065C 98ZRH	MS-883 1004	60:		0:		
				EM V			60:		0:		
						N-R.					
ITT 5473	DIP C-1 14	-55/125	09/75	THRM SHK V	-055C 125C 15CYC	MS-883 1011 B	50:		0:		
				TEMP CYC V	-065C 150C 10CYC	MS-883 1010 C	50:		0:		
				MOIST V	-010C 065C 98ZRH	MS-883 1004	50:		0:		
				EM V			50:		0:		
						N-R.					

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BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
ITT	5473	FPK	A-1	09/75	THRMSHK	-055C 125C	MS-883	530:		0:	
		14	-5		V	15CYC	1011 B				
					V	TEMPCYC	-065C 150C	530:		0:	
					V	10CYC	1010 C				
					V	MOIST	-010C 065C	530:		0:	
					V	982RH	1004				
					V	EM		530:		0:	
					V		N.R.				
ITT	5473	FPK	A-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	22:		0:	
		14	-55/125		V	6 ARCS	2004 B				
					V	FINE LK	HE 5.E-8	22:		0:	
					V	60 MIN	1014 A				
					V	GROSSLK	FLUOR 125C	22:		0:	
					V	3X	1014 C				
ITT	5473	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	75:		0:	
		14	-55/125		V	6 ARCS	2004 B				
					V	FINE LK	HE 5.E-8	75:		0:	
					V	60 MIN	1014 A				
					V	GROSSLK	FLUOR 125C	75:		0:	
					V	3X	1014 C				
ITT	5473	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	30:		0:	
		14	-55/125		V	6 ARCS	2004 B				
					V	FINE LK	HE 5.E-8	30:		0:	
					V	60 MIN	1014 A				
					V	GROSSLK	FLUOR 125C	30:		0:	
					V	3X	1014 C				
ITT	5474	DIP	B-1	09/75	SOLDER	260C 95Z	MS-883	52:		0:	
		14	-55/125		V		2003				
ITT	5474	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	65:		0:	
		14	-55/125		V	MSQ	1009 A				
ITT	5474	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	30:		0:	
		14	-55/125		V	MSQ	1009 A				
ITT	5474	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	75:		0:	
		14	-55/125		V	5 AXES	2002 B				
					V	VBVRFQ	MS-883	75:		0:	
					V		2007 A				
					V	CNSTACC	20KG 6 AXES	75:		0:	
					V	1 MIN E	2001 D				
					V	EM		75:		0:	
					V		N.R.				
ITT	5474	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	74:		0:	
		14	-55/125		V	6 AXES	2002 B				
					V	VBVRFQ	100HZ 2KHZ	74:		0:	
					V	20C	2007 A				
					V	CNSTACC	20KG 6 AXES	74:		0:	
					V	1 MIN E	2001 D				
					V	EM		74:		0:	
					V		N.R.				
ITT	5474	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	72:		0:	
		14	-55/125		V	15CYC	1011 B				
					V	TEMPCYC	-065C 150C	72:		0:	
					V	10CYC	1010 C				
					V	MOIST	-010C 065C	72:		J:	
					V	982RH	1004				
					V	EM		72:		0:	
					V		N.R.				
ITT	5474	DIP	C-1	09/75	THRMSHK	-055C 125C	MS-883	100:		0:	
		14	-55/125		V	15CYC	1011 B				
					V	TEMPCYC	-065C 150C	100:		0:	
					V	10CYC	1010 C				
					V	MOIST	-010C 065C	100:		0:	
					V	982RH	1004				
					V	EM		100:		0:	
					V		N.R.				
ITT	5474	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	45:		0:	
		14	-55/125		V	6 ARCS	2004 B				
					V	FINE LK	HE 5.E-8	45:		0:	
					V	60 MIN	1014 A				
					V	GROSSLK	FLUOR 125C	45:		0:	
					V	3X	1014 C				

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BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TMP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
ITT	5474	DIP B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	98:		0:	
		14	-55/125	V	6 ARCS	2004 B				
				FINE LK	HE 5-E-8	MS-883	98:		0:	
					60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	98:		0:	
					3X	1014 C				
ITT	5476	DIP B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	38:		0:	
		16	-55/125	V	6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	38:		0:	
					20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	38:		0:	
					1 MIN E	2001 D				
				EM			38:		0:	
				V		N-R.				
ITT	5476	DIP B-1	09/75	THRMSHK	-055C 125C	MS-883	60:		0:	
		16	-55/125	V	15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	60:		0:	
					10CYC	1010 C				
				MOIST	-010C 065C	MS-883	60:		0:	
					98ZRH	1004				
				V			60:		1:	
				EM						
				V		N-R.				
ITT	7470	E-DIP N	09/75	AUTOCLV	15PSIG 100C		52:		0:	
		14	0/70C	V	100ZRH	N-R.				
ITT	7470	E-DIP N	09/75	TEMPCYC	-065C 150C	MS-883	52:		0:	
		14	0/70C	V	10CYC	1010 C				
				EM			52:		0:	
				V		N-R.				
ITT	7470	E-DIP N	09/75	TEMPCYC	000C 125C		52:		0:	
		14	0/70C	V	10CYC	N-R.				
ITT	7470	E-DIP N	09/75	SALTATM	035C 50GMS	MS-883	25:		0:	
		14	0/70C	V	MSQ	1009 A				
ITT	7470	E-DIP N	09/75	THRMSHK	-055C 125C	MS-883	75:		0:	
		14	0/70C	V	15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	75:		0:	
					10CYC	1010 C				
				MOIST	-010C 065C	MS-883	75:		0:	
					98ZRH	1004				
				V			75:		0:	
				EM						
				V		N-R.				
ITT	7470	E-DIP N	09/75	MECHSHK	1.5KG .5MSEC	MS-883	50:		0:	
		14	0/70C	V	6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	50:		0:	
					20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	50:		0:	
					1 MIN E	2001 D				
				EM			50:		0:	
				V		N-R.				
ITT	7470	E-DIP N	09/75	LEADFTG	8 OZ 90DEG	MS-883	15:		0:	
		14	0/70C	V	6 ARCS	2004 B				
				FINE LK	HE 5-E-8	MS-883	15:		0:	
					60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15:		0:	
					3X	1014 C				
ITT	7472	DIP B-1	09/75	SOLDER	260C 95%	MS-883	44:		0:	
		14	0/70C	V		2003				
ITT	7472	DIP B-1	09/75	SALTATM	035C 50GMS	MS-883	52:		0:	
		14	0/70C	V	MSQ	1009 A				
ITT	7472	E-DIP N	09/75	SALTATM	035C 50GMS	MS-883	11:		0:	
		14	0/70C	V	MSQ	1009 A				
ITT	7472	DIP B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	10:		0:	
		14	0/70C	V	6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	10:		0:	
					20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	10:		0:	
					1 MIN E	2001 D				
				EM			10:		0:	
				V		N-R.				

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BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
ITT 7472	E-DIP 14	N 0/70C	09/75	THRMSHK	-055C 125C	MS-883	22:		0:	
				V	15CYC	1011 R				
				TEMPCYC	-065C 150C	MS-883	22:		0:	
				V	10CYC	1010 C				
				MOIST	-010C 065C	MS-883	22:		0:	
				V	982RH	1004				
				EM			22:		0:	
				V		N.R.				
ITT 7472	DIP 14	B-1 0/70C	09/75	THRMSHK	-055C 125C	MS-883	55:		0:	
				V	15CYC	1011 R				
				TEMPCYC	-065C 150C	MS-883	55:		0:	
				V	10CYC	1010 C				
				MOIST	-010C 065C	MS-883	55:		0:	
				V	982RH	1004				
				EM			55:		0:	
				V		N.R.				
ITT 7472	DIP 14	B-1 0/70C	09/75	LFADFTG	8 OZ 90DEG	MS-883	98:		0:	
				V	6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	98:		0:	
				V	60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	98:		0:	
				V	3X	1014 C				
ITT 7474	E-DIP 14	N 0/70C	09/75	AUTOCLV	15PSIG 100C		157:		1:	
				V	1002RH	N.R.				
ITT 7474	E-DIP 14	N 0/70C	09/75	TEMPCYC	-065C 150C	MS-883	52:		0:	
				V	10CYC	1010 C				
				EM			52:		0:	
				V		N.R.				
ITT 7474	E-DIP 14	N 0/70C	09/75	TEMPCYC	000C 125C		52:		0:	
				V	10CYC	N.R.				
ITT 7474	E-DIP 14	N 0/70C	09/75	SALTATH	035C 50GMS	MS-883	25:		0:	
				V	MSQ	1009 A				
ITT 7474	E-DIP 14	N 0/70C	09/75	THRMSHK	-055C 125C	MS-883	61:		0:	
				V	15CYC	1011 R				
				TEMPCYC	-065C 150C	MS-883	61:		0:	
				V	10CYC	1010 C				
				MOIST	-010C 065C	MS-883	61:		0:	
				V	982RH	1004				
				EM			61:		0:	
				V		N.R.				
ITT 7474	E-DIP 14	N 0/70C	09/75	MECHSHE	1.5KG .5MSEC	MS-883	25:		0:	
				V	6 AXES	2002 B				
				VBRFQ	100HZ 2KHZ	MS-883	25:		0:	
				V	20C	2007 A				
				CMSTACC	20KG 6 AXES	MS-883	25:		0:	
				V	1 MIN E	2001 D				
				EM			25:		0:	
				V		N.R.				
ITT 7474	E-DIP 14	N 0/70C	09/75	LEADFTG	8 OZ 90DEG	MS-883	15:		0:	
				V	6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	15:		0:	
				V	60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15:		0:	
				V	3X	1014 C				
ITT 7476	E-DIP 16	N 0/70C	09/75	TEMPCYC	-055C 150C	MS-883	98:		0:	
				V	10CYC	1010 C				
				EM			98:		0:	
				V		N.R.				
ITT 7476	E-DIP 16	N 0/70C	09/75	VIS INS		MS-883	15:		0:	
				V		2008				
				BONDSTR		MS-883	15:		0:	
				V		2011				
ITT 9001	DIP 14	N 0/70C	09/75	SALTATH	035C 50GMS	MS-883	101:		0:	
				V	MSQ	1009 A				

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BASIC TECHNOLOGY			BIPOLAR			OPERATIONAL TYPE			TTL		
MANUFACTURER	PART NO	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
		PINS	TEMP RSG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
ITT	9001	DIP	N	09/75	THRMSHK	-055C 125C	MS-883	114:		0:	
		14	0/70C	V		15CYC	1011 B				
					TEMPCYC	-065C 150C	MS-883	114:		0:	
				V		10CYC	1010 C				
					MOIST	-010C 065C	MS-883	114:		0:	
				V		982RH	1004				
					EM			114:		0:	
				V			N.R.				
ITT	9001	DIP	N	09/75	MECHSHK	1.5KG -5MSEC	MS-883	114:		0:	
		14	0/70C	V		6 AXES	2002 B				
					VBVRFQ	100HZ 2KHZ	MS-883	114:		0:	
				V		20C	2007 A				
					CNSTACC	20KG 6 AXES	MS-883	114:		0:	
				V		1 MIN E	2001 D				
					EM			114:		0:	
				V			N.R.				
ITT	9001	DIP	N	09/75	LEADFTG	8 OZ 90DEG	MS-883	60:		0:	
		14	0/70C	V		6 ARCS	2004 B				
					FINE LK	HE 5-E-8	MS-883	60:		0:	
				V		60 MIN	1014 A				
					GROSSLK	FLUOR 125C	MS-883	60:		0:	
				V		3X	1014 C				
ITT	9024	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	26:		0:	
		14	N.R.	V		MSQ	1009 A				
ITT	9024	DIP	C-1	09/75	MECHSHK	1.5KG -5MSEC	MS-883	75:		0:	
		14	N.R.	V		6 AXES	2002 B				
					VBVRFQ	100HZ 2KHZ	MS-883	75:		0:	
				V		20C	2007 A				
					CNSTACC	20KG 6 AXES	MS-883	75:		0:	
				V		1 MIN E	2001 D				
					EM			75:		0:	
				V			N.R.				
ITT	9024	DIP	C-1	09/75	THRMSHK	-055C 125C	MS-883	75:		0:	
		14	N.R.	V		15CYC	1011 B				
					TEMPCYC	-065C 150C	MS-883	75:		0:	
				V		10CYC	1010 C				
					MOIST	-010C 065C	MS-883	75:		0:	
				V		982RH	1004				
					EM			75:		0:	
				V			N.R.				
ITT	9024	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	15:		0:	
		14	N.R.	V		6 ARCS	2004 B				
					FINE LK	HE 5-E-8	MS-883	15:		0:	
				V		60 MIN	1014 A				
					GROSSLK	FLUOR 125C	MS-883	15:		0:	
				V		3X	1014 C				
ITT	9601	FPK	B-1	09/75	SOLDER	260C 95Z	MS-883	15:		0:	
		14	-55/125	V			2003				
ITT	9601	DIP	B-1	09/75	SOLDER	260C 95Z	MS-883	66:		0:	
		14	-55/125	V			2003				
ITT	9601	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	81:		0:	
		14	-55/125	V		MSQ	1009 A				
ITT	9601	FPK	C-1	09/75	SALTATM	035C 50GMS	MS-883	48:		0:	
		14	-55/125	V		MSQ	1009 A				
ITT	9601	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	52:		0:	
		14	-55/125	V		MSQ	1009 A				
ITT	9601	DIP	C-1	09/75	MECHSHK	1.5KG -5MSEC	MS-883	132:		0:	
		14	-55/125	V		6 AXES	2002 B				
					VBVRFQ	100HZ 2KHZ	MS-883	132:		0:	
				V		20C	2007 A				
					CNSTACC	20KG 6 AXES	MS-883	132:		0:	
				V		1 MIN E	2001 D				
					EM			132:		0:	
				V			N.R.				

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BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	9601	FPK 14	C-1 -55/125	09/75	MECHSHK V	1.5KG .5MSEC 6 AXES	MS-883 2002 B	68:		0:	
					VBVRFQ	100HZ 2KHZ	MS-883	68:		0:	
					V	20G	2007 A				
					CNSTACC	20KG 6 AXES	MS-883	68:		0:	
					V	1 MIN E	2001 D				
					EM			68:		0:	
					V		N.R.				
ITT	9601	DIP 14	B-1 -55/125	09/75	MECHSHK V	1.5KG .5MSEC 6 AXES	MS-883 2002 B	54:		0:	
					VBVRFQ	100HZ 2KHZ	MS-883	54:		0:	
					V	20G	2007 A				
					CNSTACC	20KG 6 AXES	MS-883	54:		0:	
					V	1 MIN E	2001 D				
					EM			54:		0:	
					V		N.R.				
ITT	9601	DIP 14	B-1 -55/125	09/75	THRMSHK V	-055C 125C 15CYC	MS-883 1011 B	72:		0:	
					TEMPCYC	-065C 150C	MS-883	72:		0:	
					V	10CYC	1010 C				
					MOIST	-010C 065C	MS-883	72:		0:	
					V	982RH	1004				
					EM			72:		0:	
					V		N.R.				
ITT	9601	DIP 14	C-1 -55/125	09/75	THRMSHK V	-055C 125C 15CYC	MS-883 1011 B	132:		0:	
					TEMPCYC	-065C 150C	MS-883	132:		0:	
					V	10CYC	1010 C				
					MOIST	-010C 065C	MS-883	132:		0:	
					V	982RH	1004				
					EM			132:		0:	
					V		N.R.				
ITT	9601	FPK 14	C-1 -55/125	09/75	THRMSHK V	-055C 125C 15CYC	MS-883 1011 B	90:		0:	
					TEMPCYC	-065C 150C	MS-883	90:		0:	
					V	10CYC	1010 C				
					MOIST	-010C 065C	MS-883	90:		0:	
					V	982RH	1004				
					EM			90:		0:	
					V		N.R.				
ITT	9601	FPK 14	C-1 -55/125	09/75	LEADFTG V	8 OZ 90DEG 6 ARCS	MS-883 2004 B	56:		0:	
					FINE LK	HE 5.E-8	MS-883	56:		0:	
					V	60 MIN	1014 A				
					GROSSLK	FLUOR 125C	MS-883	56:		0:	
					V	3X	1014 C				
ITT	9601	DIP 14	C-1 -55/125	09/75	LEADFTG V	8 OZ 90DEG 6 ARCS	MS-883 2004 B	105:		0:	
					FINE LK	HE 5.E-8	MS-883	105:		0:	
					V	60 MIN	1014 A				
					GROSSLK	FLUOR 125C	MS-883	105:		0:	
					V	3X	1014 C				
ITT	9601	DIP 14	B-1 -55/125	09/75	LEADFTG V	8 OZ 90DEG 6 ARCS	MS-883 2004 B	174:		0:	
					FINE LK	HE 5.E-8	MS-883	174:		0:	
					V	60 MIN	1014 A				
					GROSSLK	FLUOR 125C	MS-883	174:		0:	
					V	3X	1014 C				
ITT	9601	FPK 14	B-1 -55/125	09/75	LEADFTG V	8 OZ 90DEG 6 ARCS	MS-883 2004 B	15:		0:	
					FINE LK	HE 5.E-8	MS-883	15:		0:	
					V	60 MIN	1014 A				
					GROSSLK	FLUOR 125C	MS-883	15:		0:	
					V	3X	1014 C				
ITT	9602	FPK 16	B-1 -55/125	09/75	SOLDER V	260C 952	MS-883 2003	15:		0:	
ITT	9602	FPK 16	B-1 -55/125	09/75	LEADFTG V	8 OZ 90DEG 6 ARCS	MS-883 2004 B	15:		0:	
					FINE LK	HE 5.E-8	MS-883	15:		0:	
					V	60 MIN	1014 A				
					GROSSLK	FLUOR 125C	MS-883	15:		0:	
					V	3X	1014 C				

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
MOTOROLA	54103	FPK 14	N -55/125	07/75	FINE LK	HE 5.E-8	MS-883	18:		0:	
						60 MIN	1014 A				
					CROSSLK	FLUOR 125C	MS-883	18:		0:	
						3X	1014 C				
					LEADFTG	90DEG	MS-883	18:		0:	
						3 ARCS	2004 B				
					FINE LK	HE 5.E-8	MS-883	18:		0:	
						60 MIN	1014 A				
					CROSSLK	FLUOR 125C	MS-883	18:		0:	
						3X	1014 C				
MOTOROLA	54103	FPK 14	N -55/125	07/75	SOLDER	260C 95Z	MS-883	7:		0:	
						5 SEC	2003				
MOTOROLA	54103	FPK 14	N -55/125	07/75	FINE LK	HE 5.E-8	MS-883	21:		0:	
						60 MIN	1014 A				
					CROSSLK	FLUOR 125C	MS-883	21:		0:	
						3X	1014 C				
					STAT EM	025C		21:		0:	
							N.R.				
					MFCMSHK	1.5KG .5MSEC	MS-883	21:		0:	
						6 AXES	2002 B				
					VBVRFQ	20HZ 2KHZ	MS-883	21:		0:	
						50C	2007 B				
					CMSTACC	30KG 6 AXES	MS-883	21:		0:	
						1 MIN E	2001 E				
					STAT EM	025C		21:		0:	
							N.R.				
MOTOROLA	54103	FPK 14	N -55/125	07/75	FINE LK	HE 5.E-8	MS-883	23:		0:	
						60 MIN	1014 A				
					CROSSLK	FLUOR 125C	MS-883	23:		0:	
						3X	1014 C				
					STAT EM	025C		23:		0:	
							N.R.				
					THRMSHK	000C 100C	MS-883	23:		0:	
						15CY	1011 A				
					TEMPCTC	-065C 150C	MS-883	23:		0:	
						10CY	1010 C				
					MOIST	-010C 065C	MS-883	23:		0:	
						985RH	1004				
					STAT EM	025C		23:		0:	
							N.R.				
SIGNETICS	54174	DIP 16	B-1 -55/125	03/75	THRMSHK	-055C 125C	MM38510	41:		0:	
						15CY	1011 B				
					VBVRFQ	20HZ 2KHZ	MM38510	41:		0:	
						20C	2007 A				
					FINE LK	HE 5.E-8	MM38510	41:		0:	
						60 MIN	1014 A				
					CROSSLK	FLUOR 125C	MM38510	41:		0:	
						3X	1014 C				
					EM	025C	MM38510	41:		0:	
							N.R.				
SIGNETICS	5476	DIP 16	B-1 -55/125	10/75	THRMSHK	-055C 125C	MM38510	32:		0:	
						15CY	1011 B				
					VBVRFQ	20HZ 2KHZ	MM38510	32:		0:	
						20C	2007 A				
					FINE LF	HE 5.E-8	MM38510	32:		0:	
						60 MIN	1014 A				
					CROSSLK	FLUOR 125C	MM38510	32:		0:	
						3X	1014 C				
					EM	025C	MM38510	32:		0:	
							N.R.				
SIGNETICS	5476	DIP 16	B-1 -55/125	06/75	THRMSHK	-055C 125C	MM38510	41:		0:	
						15CY	1011 B				
					VBVRFQ	20HZ 2KHZ	MM38510	41:		0:	
						20C	2007 A				
					FINE LK	HE 5.E-8	MM38510	41:		5:	
						60 MIN	1014 A				

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BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
SIGNETICS 74174	N.R. 16	N.R. 0/70C	08/75	VIS INS			100:		0:	
				U		N.R.	100:		0:	
				U	FINE LK	N.R.	100:		0:	
				U	GROSSLK	N.R.	100:		0:	
				U	EM	N.R.	100:		0:	
				U	EM	N.R.	100:		3:	
				U	TEMPCYC	N.R.	100:		0:	
				U	VIS INS	N.R.	100:		0:	
				U		N.R.				
STEWART WARNER 1439	FPK 14	C-1 N.R.	09/75	SALTATM	035C 50CPS	MS-883	22:		0:	
				V	MSQ	1009 A				
STEWART WARNER 1439	FPK 14	C-1 N.R.	09/75	THRM SHK	-055C 125C	MS-883	28:		0:	
				V	15CYC	1011 B				
				V	TEMPCYC	-065C 150C	MS-883	28:	0:	
				V	10CYC	1010 C				
				V	MOIST	-010C 065C	MS-883	28:	0:	
				V	9812H	1004				
				V	EM		28:		0:	
				V		N.R.				
STEWART WARNER 1439	FPK 14	C-1 N.R.	09/75	LEAD FIC	8 OZ 5000C	MS-883	100:		0:	
				V	6 ARCS	2004 B				
				V	FINE LK	WE S-E-B	MS-883	100:	0:	
				V	60 MIN	1012 A				
				V	GROSSLK	FLOOR 125C	MS-883	100:	0:	
				V	3X	1012 C				
T-1 74174	N.R. 16	N.R. 0/70C	08/75	VIS INS			226:		0:	
				U		N.R.	226:		0:	
				U	FINE LK	N.R.	226:		0:	
				U	GROSSLK	N.R.	226:		0:	
				U	EM	N.R.	226:		0:	
				U	EM	N.R.	226:		2:	
				U	TEMPCYC	N.R.	226:		0:	
				U	VIS INS	N.R.	226:		0:	
				U		N.R.				
T-1 74175	N.R. 16	N.R. 0/70C	08/75	VIS INS			1285:		0:	
				U	FINE LK	N.R.	1285:		8: REF 1677/8	
				U	GROSSLK	N.R.	1285:		0:	
				U	EM	N.R.	1285:		2:	
				U	EM	N.R.	1285:		29:	
				U	TEMPCYC	N.R.	1285:		0:	
				U	VIS INS	N.R.	1285:		0:	
				U		N.R.				
VARIOUS 54109	DIP 16	N -55/125	12/75	EM			500:		3: REF 858/1, 459/1, 440/1	
				U		N.R.				
				U	X-RAY		503:		0:	
				U	EM	N.R.	503:		0:	
				U		N.R.				
VARIOUS 5473	DIP 16	N -55/125	12/75	X-RAY			770:		0:	
				U	EM	N.R.	770:		0:	
				U		N.R.				
VARIOUS 9402	DIP 16	N -55/125	12/75	X-RAY			207:		0:	
				U	EM	N.R.	207:		0:	
				U		N.R.				

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BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE ECL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD 10131	DIP 16	N -55/125	01/77	MECHSHK V	1.5KG .5MSEC 6 AXES	MM38510 2002 B	50:		0:	
				VBVRFQ V	20HZ 2KHZ 20G	MM38510 2007 A	50:		0:	
				CNSTACC V	30KG 6 AXES 1 MIN E	MM38510 2001 E	50:		0:	
				HERMET V		N.R.	50:		0:	
FAIRCHILD 10131	DIP 16	N -55/125	01/77	THRMSHK V	-055C 125C 15CY	MM38510 1011 B	50:		0:	
				TEMPCYC V	-065C 150C 10CY	MM38510 1010 C	50:		0:	
				HERMET V		N.R.	50:		0:	
FAIRCHILD 10231	DIP 16	N -55/125	01/77	VIS INS V	10X 20X	MM38510 2008 B	5:		0:	
				BONDSTR V		MM38510 2011	5:		0:	
				SOLDER V	260C 95Z 5 SEC	MM38510 2003	5:		0:	
				LEADFTG V	8 OZ 90DEGS 3 ARCS	MM38510 2004 B	5:		0:	
				HERMET V		N.R.	5:		0:	
FAIRCHILD 10231	DIP 16	N -55/125	01/77	THRMSHK V	-055C 125C 15CY	MM38510 1011 B	10:		0:	
				TEMPCYC V	-065C 150C 10CY	MM38510 1010 C	10:		0:	
				HERMET V		N.R.	10:		0:	
FAIRCHILD 10231	DIP 16	N -55/125	01/77	THRMSHK V	-055C 125C 15CY	MM38510 1011 B	10:		0:	
				TEMPCYC V	-065C 150C 10CY	MM38510 1010 C	10:		0:	
				HERMET V		N.R.	10:		0:	
FAIRCHILD 10231	DIP 16	N -55/125	01/77	SALTATM V	035C 25GMS MSQ	MM38510 1009 A	10:		0:	
				VIS INS V		N.R.	10:		0:	

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
RCA 4013A	DIP 14	A-1 -55/125	03/75	VIS INS Q	45X	MM38510 2014	55:		0:	
				BONDSTR Q	2.5GMS129BDS	MM38510 2011 D	10:		0:	
RCA 4013A	DIP 14	A-1 -55/125	03/75	SOLDER Q	260C 95Z 5 SEC	MM38510 2003	55:		0:	
RCA 4013A	DIP 14	A-1 -55/125	03/75	LEADFTG Q	8 OZ 90DEGS 3 ARCS	MM38510 2004 B	55:		0:	
				FINE LK Q	HE 3.E-8 60 MIN	MM38510 1014 A	55:		0:	
				GROSSLK Q	FLUOR 125C 3X	MM38510 1014 C	55:		0:	

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS

MANUFACTURER	PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
RCA	4013A	DIP 14	A-1 -55/125	04/75	THRM SHK	-065C 150C	MM38510	75:		0:	
				Q		15CYC	1011 C				
				Q	TEMP CYC	-065C 150C	MM38510	75:		0:	
				Q		10CYC	1010 C				
				Q	MOIST	-010C 065C	MM38510	75:		0:	
				Q		98ZRH	1004				
				Q	FINE LK	HE 3.E-8	MM38510	75:		0:	
				Q		60 MIN	1014 A				
				Q	GROSS LK	FLUOR 125C	MM38510	75:		0:	
				Q		3X	1014 C				
				Q	EM	025C	MM38510	75:		0:	
				Q			N.R.				
				Q	EM	125C	MM38510	75:		0:	
				Q			N.R.				
				Q	EM	-055C	MM38510	75:		0:	
				Q			N.R.				
RCA	4013A	DIP 14	A-1 -55/125	04/75	MECH SHK	1.5KG .5MSEC	MM38510	75:		0:	
				Q		6 AXES	2002 B				
				Q	VBVRFQ	20HZ 2KHZ	MM38510	75:		0:	
				Q		20G	2007 A				
				Q	CNSTACC	20KG 6 AXES	MM38510	75:		0:	
				Q		1 MIN E	2001 D				
				Q	FINE LK	HE 5.E-8	MM38510	75:		0:	
				Q		60 MIN	1014 A				
				Q	GROSS LK	FLUOR 125C	MM38510	75:		0:	
				Q		3X	1014 C				
				Q	EM	025C	MM38510	75:		0:	
				Q			N.R.				
				Q	EM	125C	MM38510	75:		0:	
				Q			N.R.				
				Q	EM	-055C	MM38510	75:		0:	
				Q			N.R.				
RCA	4013A	DIP 14	A-1 -55/125	03/75	SALT ATM	035C 30GMS	MM38510	55:		0:	
				Q		MSQ	1009 A				
RCA	4027A	DIP 16	A-1 -55/125	08/75	SALT ATM	035C 30GMS	MM38510	55:		1:	
				V		MSQ	1009 A				
RCA	4027A	DIP 16	C-1 -55/125	11/75	SOLDER	260C 95%	MM38510	5:		0:	
				Q		5 SEC	2003				
RCA	4027A	DIP 16	B-1 -55/125	12/75	THRM SHK	-065C 150C	MM38510	43:		0:	
				Q		15CYC	1011 C				
				Q	TEMP CYC	-065C 150C	MM38510	43:		0:	
				Q		10CYC	1010 C				
				Q	MOIST	-010C 065C	MM38510	43:		0:	
				Q		98ZRH	1004				
				Q	FINE LK	HE 5.E-8	MM38510	43:		1:	
				Q		60 MIN	1014 A				
				Q	GROSS LK	FLUOR 125C	MM38510	42:		0:	
				Q		3X	1014 C				
				Q	EM		MM38510	42:		0:	
				Q			N.R.				
RCA	4027A	DIP 16	C-1 -55/125	12/75	SALT ATM	035C 27GMS	MM38510	42:		0:	
				Q		MSQ	1009 A				
RCA	4027A	DIP 16	A-1 -55/125	08/75	OP CNST	125C	MM38510	129:	1.29E 05	0:	
				V			1005 B				
RCA	4027A	DIP 16	A-1 -55/125	08/75	BAKE	150C	MM38510	45:	4.50E 04	0:	
				V			1008 C				
RCA	4027A	DIP 16	A-1 -55/125	08/75	MECH SHK	1.5KG .5MSEC	MM38510	32:		0:	
				V		6 AXES	2002 B				
				V	VBVRFQ	20HZ 2KHZ	MM38510	32:		0:	
				V		20G	2007 A				
				V	CNSTACC	20KG 6 AXES	MM38510	32:		0:	
				V		1 MIN E	2001 D				
				V	FINE LK	HE 5.E-8	MM38510	32:		0:	
				V		60 MIN	1014 A				
				V	GROSS LK	FLUOR 125C	MM38510	32:		0:	
				V		3X	1014 C				

FLIP FLOP

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
RCA 4027A	DIP 16	A-1 -55/125	08/75	THRMSHK V	-065C 150C 15CYC	MM38510 1011 C	32		0	
				TEMPCYC V	-065C 150C 10CYC	MM38510 1010 C	32		0	
				MOIST V	-010C 065C 94ZRH	MM38510 1004	32		0	
				FINE LK V	HE 5.E-8 60 MIN	MM38510 1014 A	32		0	
				GROSSLK V	FLUOR 125C 3X	MM38510 1014 C	32		0	
RCA 4027A	DIP 16	A-1 -55/125	08/75	LEADFTG V	8 OZ 90DEG 3 ARCS	MM38510 2004 B	55		0	
				FINE LK V	HE 3.E-8 60 MIN	MM38510 1014 A	55		0	
				GROSSLK V	FLUOR 125C 3X	MM38510 1014 C	55		0	
RCA 4027A	DIP 16	A-1 -55/125	08/75	SOLDER V	260C 95% 5 SEC	MM38510 2003	55		0	
RCA 4027A	DIP 16	A-1 -55/125	08/75	BONDSTR V	2.5GMS 129BD	MM38510 2011 D	129		0	
RCA 4027A	DIP 16	A-1 -55/125	08/75	VIS INS V	80X	MM38510 2014	55		0	
FAIRCHILD 9406	E-DIP 24	N 0/70C	05/78	THRMSHK V	-055C 125C 15CY	N.R.	25		0	
				TEMPCYC V	-065C 150C 10CY	N.R.	25		0	
				EM V		N.R.	25		1:MFEF 682/1	

GATE

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
NATIONAL 54L00	DIP 14	N -55/125	12/75	THRMSHK V	000C 100C 15CY	MS-883 1011 A	7		0	
				TEMPCYC V	-065C 150C 10CY	MS-883 1010 C	7		0	
				MOIST V	-010C 065C 98ZRH	MS-883 1004	7		0	
				EM V		N.R.	7		0	
NATIONAL 54L00	DIP 14	N -55/125	07/76	THRMSHK V	000C 100C 15CY	MS-883 1011 A	5		0	
				TEMPCYC V	-065C 150C 10CY	MS-883 1010 C	5		0	
				MOIST V	-010C 065C 98ZRH	MS-883 1004	5		0	
				EM V		N.R.	5		0	
NATIONAL 54L00	DIP 14	N -55/125	12/75	MECHSHK V	1.5KG .5MSEC 16 AXES	MS-883 2002 B	7		0	
				VBVRFQ V	20HZ 2KHZ 50C	MS-883 2007 B	7		0	
				CHSTACC V	30KG 6 AXES 1 MIN E	MS-883 2001 E	7		0	
				EM V		N.R.	7		0	
NATIONAL 54L10	DIP 14	N -55/125	12/75	THRMSHK V	000C 100C 15CY	MS-883 1011 A	15		0	
				TEMPCYC V	-065C 150C 10CY	MS-883 1010 C	15		0	
				MOIST V	-010C 065C 98ZRH	MS-883 1004	15		0	
				EM V		N.R.	15		0	

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BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE LOW POWER TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	1/1
NATIONAL 54L10	DIP 14	N -55/125	12/75	MECHSHK V	1.5KG .5MSEC 6 AXES	MS-883 2002 B	15:		0:		
				VBVR TM Q	20HZ 2KHZ	MS-883	15:		0:		
				V	50G	2007 B					
				CNSTACC	30KG 6 AXES	MS-883	15:		0:		
				V	1 MIN E	2001 E					
				EM			15:		0:		
				V		N.R.					
NATIONAL 54L86	DIP 14	N -55/125	12/75	THRMSHK V	000C 100C 15CY	MS-883 1011 A	22:		0:		
				TEMPCYC	-065C 150C	MS-883	22:		0:		
				V	10CY	1010 C					
				MOIST	-010C 065C	MS-883	22:		0:		
				V	98ZRH	1004					
				EM			22:		0:		
				V		N.R.					
NATIONAL 54L86	DIP 14	N -55/125	07/76	THRMSHK V	000C 100C 15CY	MS-883 1011 A	5:		0:		
				TEMPCYC	-065C 150C	MS-883	5:		0:		
				V	10CY	1010 C					
				MOIST	-010C 065C	MS-883	5:		0:		
				V	98ZRH	1004					
				EM			5:		0:		
				V		N.R.					
NATIONAL 54L86	DIP 14	N -55/125	12/75	MECHSHK V	1.5KG .5MSEC 6 AXES	MS-883 2002 B	21:		0:		
				VBVR TM Q	20HZ 2KHZ	MS-883	21:		0:		
				V	50G	2007 B					
				CNSTACC	30KG 6 AXES	MS-883	21:		0:		
				V	1 MIN E	2001 E					
				FM			21:		0:		
				V		N.R.					
NATIONAL 54L86	DIP 14	N -55/125	07/76	MECHSHK V	1.5KG .5MSEC 6 AXES	MS-883 2002 B	5:		0:		
				VBVR TM Q	20HZ 2KHZ	MS-883	5:		0:		
				V	50G	2007 B					
				CNSTACC	30KG 6 AXES	MS-883	5:		0:		
				V	1 MIN E	2001 E					
				EM			5:		0:		
				V		N.R.					

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BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE HIGH SPEED TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	1/1
ITT 54H00	E-DIP 14	N -55/125	09/75	AUTOCLV V	15PSIG 100C 100ZRH	N.R.	82:		0:		
ITT 54H00	E-DIP 14	N -55/125	09/75	TEMPCYC V	-065C 150C 10CYC	MS-883 1010 C	104:		0:		
				EM			104:		0:		
				V		N.R.					
ITT 54H00	E-DIP 14	N -55/125	09/75	TEMPCYC V	000C 125C 10CYC	N.R.	30:		0:		
ITT 54H00	E-DIP 14	N -55/125	09/75	VIS INS V		MS-883 2008	15:		0:		
				BONDSTR		MS-883 2011	15:		0:		
				V							
ITT 54H00	FPK 14	R-1 -55/125	09/75	SOLDFR V	260C 95%	MS-883 2003	30:		0:		
ITT 54H00	E-DIP 14	N -55/125	09/75	SALTATM V	035C 50GMS MSQ	MS-883 1009 A	25:		0:		
ITT 54H00	DIP 14	C-1 -55/125	09/75	SALTATM V	035C 50GMS MSQ	MS-883 1009 A	25:		0:		

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ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RNG	TEST SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	10
ITT	54H00	DIP C-1 14	-55/125	09/75	MECHSHK	1.5KG .5MSEC	MS-883	25:		0:		
					V	6 AXES	2002 B					
					VBVRFQ	100HZ 2KHZ	MS-883	25:		0:		
					V	20G	2007 A					
					CNSTACC	20KG 6 AXES	MS-883	25:		0:		
					V	1 MIN E	2001 D					
					EM			25:		0:		
					V		N.R.					
ITT	54H00	E-DIP N 14	-55/125	09/75	THRMSHK	-055C 125C	MS-883	50:		0:		
					V	15CYC	1011 B					
					TEMPCYC	-065C 150C	MS-883	50:		0:		
					V	10CYC	1010 C					
					MOIST	-010C 065C	MS-883	50:		0:		
					V	98ZRH	1004					
					EM			50:		0:		
					V		N.R.					
ITT	54H00	DIP C-1 14	-55/125	09/75	THRMSHK	-055C 125C	MS-883	25:		0:		
					V	15CYC	1011 B					
					TEMPCYC	-065C 150C	MS-883	25:		0:		
					V	10CYC	1010 C					
					MOIST	-010C 065C	MS-883	25:		0:		
					V	98ZRH	1004					
					EM			25:		0:		
					V		N.R.					
ITT	54H00	E-DIP N 14	-55/125	09/75	MECHSHK	1.5KG .5MSEC	MS-883	25:		0:		
					V	6 AXES	2002 B					
					VBVRFQ	100HZ 2KHZ	MS-883	25:		0:		
					V	20G	2007 A					
					CNSTACC	20KG 6 AXES	MS-883	25:		0:		
					V	1 MIN E	2001 D					
					EM			25:		0:		
					V		N.R.					
ITT	54H00	E-DIP N 14	-55/125	09/75	LEADFTG	8 OZ 90DEG	MS-883	15:		0:		
					V	6 ARCS	2004 B					
					FINE LK	HE 5.E-8	MS-883	15:		0:		
					V	60 MIN	1014 A					
					GROSSLK	FLUOR 125C	MS-883	15:		0:		
					V	3X	1014 C					
ITT	54H00	DIP C-1 14	-55/125	09/75	LEADFTG	8 OZ 90DEG	MS-883	45:		0:		
					V	6 ARCS	2004 B					
					FINE LK	HE 5.E-8	MS-883	45:		0:		
					V	60 MIN	1014 A					
					GROSSLK	FLUOR 125C	MS-883	45:		0:		
					V	3X	1014 C					
ITT	54H00	FPK B-1 14	-55/125	09/75	LEADFTG	8 OZ 90DEG	MS-883	45:		0:		
					V	6 ARCS	2004 B					
					FINE LK	HE 5.E-8	MS-883	45:		0:		
					V	60 MIN	1014 A					
					GROSSLK	FLUOR 125C	MS-883	45:		0:		
					V	3X	1014 C					
ITT	54H10	FPK B-1 14	-55/125	09/75	SOLDER	260C 95%	MS-883	45:		0:		
					V		2003					
ITT	54H10	DIP B-1 14	-55/125	09/75	SOLDER	260C 95%	MS-883	15:		0:		
					V		2003					
ITT	54H10	FPK B-1 14	-55/125	09/75	SALTATM	035C 50GMS	MS-883	15:		0:		
					V	MSQ	1009 A					
ITT	54H10	FPK B-1 14	-55/125	09/75	MECHSHK	1.5KG .5MSEC	MS-883	45:		0:		
					V	6 AXES	2002 B					
					VBVRFQ	100HZ 2 KHZ	MS-883	45:		0:		
					V	20G	2007 A					
					CNSTACC	20KG 6 AXES	MS-883	45:		0:		
					V	1 MIN E	2001 D					
					EM			45:		0:		
					V		N.R.					
ITT	54H10	FPK B-1 14	-55/125	09/75	THRMSHK	-055C 125C	MS-883	75:		0:		
					V	15CYC	1011 B					
					TEMPCYC	-065C 150C	MS-883	75:		0:		
					V	10CYC	1010 C					
					MOIST	-010C 065C	MS-883	75:		0:		
					V	98ZRH	1004					
					EM			75:		1:		
					V		N.R.					

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ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RRG	TEST SRC	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	54H10	DIP :B-1 14	:09/75 -55/125	:LEADFTG V	:8 OZ 90DEG :6 ARCS :FINE LK :HE 5.E-8 :60 MIN :GROSSLK :FLUOR 125C :3X	:MS-883 :2004 B :MS-883 :1014 A :MS-883 :1014 C	:15: : :15: : :15: :	: : : : : :	:0: : : : : :	: : : : : :
ITT	54H10	FPK :B-1 14	:09/75 -55/125	:LEADFTG V	:8 OZ 90DEG :6 ARCS :FINE LK :HE 5.E-8 :60 MIN :GROSSLK :FLUOR 125C :3X	:MS-883 :2004 B :MS-883 :1014 A :MS-883 :1014 C	:69: : :69: : :69: :	: : : : : :	:0: : : : : :	: : : : : :
ITT	54H30	DIP :B-1 14	:09/75 -55/125	:SOLDER V	:260C 95Z	:MS-883 :2003	:42: :	: :	:0: :	: :
ITT	54H30	DIP :B-1 14	:09/75 -55/125	:SALTATM V	:035C 50GMS :MSQ	:MS-883 :1009 A	:22: :	: :	:0: :	: :
ITT	54H30	DIP :B-1 14	:09/75 -55/125	:MECHSHK V	:1.5KG .5MSEC :6 AXES :VBRFQ :100HZ 2.KHZ :20G :CNSTACC :20KG 6 AXES :1 MIN E :EM	:MS-883 :2002 B :MS-883 :2007 A :MS-883 :2001 D :N.R.	:38: : :38: : :38: : :38: :	: : : : : : : :	:0: : : : : : : :	: : : : : : : :
ITT	54H30	DIP :B-1 14	:09/75 -55/125	:THRMSHK V	:055C 125C :15CYC :TEMPCYC :065C 150C :10CYC :MOIST :010C 065C :98ZRH :EM	:MS-883 :1011 B :MS-883 :1010 C :MS-883 :1004 :N.R.	:60: : :60: : :60: : :60: :	: : : : : : : :	:0: : : : : : : :	: : : : : : : :
ITT	54H30	DIP :B-1 14	:09/75 -55/125	:LEADFTG V	:8 OZ 90DEG :6 ARCS :FINE LK :HE 5.E-8 :60 MIN :GROSSLK :FLUOR 125C :3X	:MS-883 :2004 B :MS-883 :1014 A :MS-883 :1014 C	:44: : :44: : :44: :	: : : : : :	:0: : : : : :	: : : : : :
ITT	74H00	E-DIP :N 14	:09/75 0/70C	:THRMSHK V	:055C 125C :15CYC :TEMPCYC :065C 150C :10CYC :MOIST :010C 065C :98ZRH :EM	:MS-883 :1011 B :MS-883 :1010 C :MS-883 :1004 :N.R.	:10: : :10: : :10: : :10: :	: : : : : : : :	:0: : : : : : : :	: : : : : : : :
ITT	9002	DIP :C-1 14	:09/75 -55/125	:SALTATM V	:035C 50GMS :MSQ	:MS-883 :1009 A	:22: :	: :	:0: :	: :
ITT	9002	DIP :C-1 14	:09/75 -55/125	:THRMSHK V	:055C 125C :15CYC :TEMPCYC :065C 150C :10CYC :MOIST :010C 065C :98ZRH :EM	:MS-883 :1011 B :MS-883 :1010 C :MS-883 :1004 :N.R.	:11: : :11: : :11: : :11: :	: : : : : : : :	:0: : : : : : : :	: : : : : : : :
ITT	9003	DIP :N 14	:09/75 -55/125	:THRMSHK V	:055C 125C :15CYC :TEMPCYC :065C 150C :10CYC :MOIST :010C 065C :98ZRH :EM	:MS-883 :1011 R :MS-883 :1010 C :MS-883 :1004 :N.R.	:142: : :142: : :142: : :142: :	: : : : : : : :	:0: : : : : : : :	: : : : : : : :
ITT	9003	DIP :N 14	:09/75 -55/125	:MECHSHK V	:1.5KG .5MSEC :6 AXES :VBRFQ :100HZ 2.KHZ :20G :CNSTACC :20KG 6 AXES :1 MIN E :EM	:MS-883 :2002 B :MS-883 :2007 A :MS-883 :2001 D :N.R.	:76: : :76: : :76: : :76: :	: : : : : : : :	:0: : : : : : : :	: : : : : : : :

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ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
ITT 9903	DIP 14	C-1 -55/125	09/75	LEADFTG : V	8 OZ 90DEG : 6 ARCS	MS-883 : 2004 B	60 :	0 :	0 :		
				FINE LK : V	HE 5.E-8 : 60 MIN	MS-883 : 1014 A	60 :	0 :	0 :		
				GROSSLK : V	FLUOR 125C : 3X	MS-883 : 1014 C	60 :	0 :	0 :		
ITT 9907	DIP 14	C-1 -55/125	09/75	LEADFTG : V	8 OZ 90DEG : 6 ARCS	MS-883 : 2004 B	68 :	0 :	0 :		
				HERMET : V	MS-883 : 1014	68 :	1 :	1 :	1 :		
ITT 9907	DIP 14	C-1 -55/125	09/75	SALTATM : V	035C 50GHS : MSQ	MS-883 : 1009 A	25 :	0 :	0 :		
ITT 9907	DIP 14	C-1 -55/125	09/75	MECHSHK : V	1.5KG .5MSEC : 6 AXES	MS-883 : 2002 B	38 :	0 :	0 :		
				VBVRFQ : V	100HZ 2KHZ : 20G	MS-883 : 2007 A	38 :	0 :	0 :		
				CNSTACC : V	20KG 6 AXES : 1 MIN E	MS-883 : 2001 D	38 :	0 :	0 :		
				EM : V	N.R.	38 :	1 :	1 :	1 :		
ITT 9907	DIP 14	C-1 -55/125	09/75	THRMSHK : V	-055C 125C : 15CYC	MS-883 : 1011 B	72 :	0 :	0 :		
				TEMPCYC : V	-065C 150C : 10CYC	MS-883 : 1010 C	72 :	0 :	0 :		
				MOIST : V	-010C 065C : 98ZRH	MS-883 : 1004	72 :	0 :	0 :		
				EM : V	N.R.	72 :	0 :	0 :	0 :		
ITT 9908	DIP 14	C-1 -55/125	09/75	SALTATM : V	035C 50GHS : MSQ	MS-883 : 1009 A	25 :	0 :	0 :		
ITT 9908	DIP 14	C-1 -55/125	09/75	MECHSHK : V	1.5KG .5MSEC : 6 AXES	MS-883 : 2002 B	38 :	0 :	0 :		
				VBVRFQ : V	100HZ 2KHZ : 20G	MS-883 : 2007 A	38 :	0 :	0 :		
				CNSTACC : V	20KG 6 AXES : 1 MIN E	MS-883 : 2001 D	38 :	0 :	0 :		
				EM : V	N.R.	38 :	0 :	0 :	0 :		
ITT 9908	DIP 14	C-1 -55/125	09/75	THRMSHK : V	-055C 125C : 15CYC	MS-883 : 1011 B	38 :	0 :	0 :		
				TEMPCYC : V	-065C 150C : 10CYC	MS-883 : 1010 C	38 :	0 :	0 :		
				MOIST : V	-010C 065C : 98ZRH	MS-883 : 1004	38 :	0 :	0 :		
				EM : V	N.R.	38 :	0 :	0 :	0 :		
ITT 9908	DIP 14	C-1 -55/125	09/75	LEADFTG : V	8 OZ 90DEG : 6 ARCS	MS-883 : 2004 B	45 :	0 :	0 :		
				FINE LK : V	HE 5.E-8 : 60 MIN	MS-883 : 1014 A	45 :	0 :	0 :		
				GROSSLK : V	FLUOR 125C : 3X	MS-883 : 1014 C	45 :	0 :	0 :		
MOTOROLA 54H00	FPK 14	N -55/125	07/75	FINE LK : Q	HE 5.E-8 : 60 MIN	MS-883 : 1014 A	102 :	0 :	0 :		
				GROSSLK : Q	FLUOR 125C : 3X	MS-883 : 1014 C	102 :	0 :	0 :		
				LEADFTG : Q	90DEG : 3 ARCS	MS-883 : 2004 B	102 :	0 :	0 :		
				FINE LF : Q	HE 5.E-8 : 60 MIN	MS-883 : 1014 A	102 :	0 :	0 :		
				GROSSLK : Q	FLUOR 125C : 3X	MS-883 : 1014 C	102 :	0 :	0 :		
MOTOROLA 54H00	FPK 14	N -55/125	07/75	SOLDER : Q	260C 95% : 5 SEC	MS-883 : 2003	14 :	0 :	0 :		

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BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	10
MOTOROLA 54H00	FPK : N 14	-55/125	07/75	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	94:		0:		
				GROSSLK	FLUOR 125C	MS-883 1014 C	94:		0:		
				STAT EM	025C	N.R.	94:		0:		
				MECHSHK	1.5KG .5MSEC	MS-883 2002 B	94:		0:		
				VBVRFQ	20HZ 2KHZ	MS-883 2007 B	94:		0:		
				CNSTACC	30KG 6 AXES	MS-883 2001 E	94:		0:		
				STAT EM	025C	N.R.	94:		2:		
MOTOROLA 54H00	FPK : N 14	-55/125	07/75	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	103:		0:		
				GROSSLK	FLUOR 125C	MS-883 1014 C	103:		0:		
				STAT EM	025C	N.R.	103:		0:		
				THRMSHK	000C 100C	MS-883 1011 A	103:		0:		
				TEMPCYC	-665C 150C	MS-883 1010 C	103:		0:		
				MOIST	-010C 065C	MS-883 1004	103:		0:		
				STAT EM	025C	N.R.	103:		1:		
MOTOROLA 54H40	FPK : N 14	-55/125	07/75	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	81:		0:		
				GROSSLK	FLUOR 125C	MS-883 1014 C	81:		0:		
				LEADFTG	90DEG	MS-883 2004 B	81:		0:		
				FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	81:		0:		
				GROSSLK	FLUOR 125C	MS-883 1014 C	81:		0:		
MOTOROLA 54H40	FPK : N 14	-55/125	07/75	SOLDER	260C 95Z 5 SEC	MS-883 2003	8:		0:		
MOTOROLA 54H40	FPK : N 14	-55/125	07/75	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	81:		0:		
				GROSSLK	FLUOR 125C	MS-883 1014 C	81:		0:		
				STAT EM	025C	N.R.	81:		0:		
				MECHSHK	1.5KG .5MSEC	MS-883 2002 B	81:		0:		
				VBVRFQ	20HZ 2KHZ	MS-883 2007 B	81:		0:		
				CNSTACC	30KG 6 AXES	MS-883 2001 E	81:		0:		
				STAT EM	025C	N.R.	81:		0:		
MOTOROLA 54H40	FPK : N 14	-55/125	07/75	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	79:		0:		
				GROSSLK	FLUOR 125C	MS-883 1014 C	79:		0:		
				STAT EM	025C	N.R.	79:		0:		
				THRMSHK	000C 100C	MS-883 1011 A	79:		0:		
				TEMPCYC	-065C 150C	MS-883 1010 C	79:		0:		
				MOIST	-010C 065C	MS-883 1004	79:		0:		
				STAT EM	025C	N.R.	79:		0:		
RAYTHEON 3220	FPK : N 14	-55/125	12/75	X-RAY		N.R.	1962:		0:		
				EH		N.R.	1962:		0:		
						N.R.					

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BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	11
SIGNETICS 54H01	FPK 14	B-1 -55/125	05/75	THRMSHK	-055C 125C	MM38510	41:		0:		
					15CY	1011 B					
				VBVRFQ	20HZ 2KHZ	MM38510	41:		0:		
					20G	2007 A					
				FINE LK	HE 5.E-8	MM38510	41:		0:		
					60 MIN	1014 A					
				GROSSLK	FLUOR 125C	MM38510	41:		0:		
					3X	1014 C					
				EM	025C	MM38510	0:	4.10E 04	0:		
						N.R.					
SIGNETICS 54H50	DIP 14	B-1 -55/125	06/75	THRMSHK	-055C 125C	MM38510	29:		0:		
					15CY	1011 B					
				VBVRFQ	20HZ 2KHZ	MM38510	29:		0:		
					20G	2007 A					
				FINE LK	HE 5.E-8	MM38510	29:		0:		
					60 MIN	1014 A					
				GROSSLK	FLUOR 125C	MM38510	29:		0:		
					3X	1014 C					
				EM	025C	MM38510	29:		0:		
						N.R.					
SIGNETICS 54H50	DIP 14	B-1 -55/125	05/75	THRMSHK	-055C 125C	MM38510	29:		0:		
					15CY	1011 B					
				VBVRFQ	20HZ 2KHZ	MM38510	29:		0:		
					20G	2007 A					
				FINE LK	HE 5.E-8	MM38510	29:		4:		
					60 MIN	1014 A					
SIGNETICS 54H51	DIP 14	B-1 -55/125	04/75	THRMSHK	-055C 125C	MM38510	29:		0:		
					15CY	1011 B					
				VBVRFQ	20HZ 2KHZ	MM38510	29:		0:		
					20G	2007 A					
				FINE LK	HE 5.E-8	MM38510	29:		0:		
					60 MIN	1014 A					
				GROSSLK	FLUOR 125C	MM38510	29:		0:		
					3X	1014 C					
				EM	025C	MM38510	29:		0:		
						N.R.					
SIGNETICS 54H53	DIP 14	B-1 -55/125	02/75	THRMSHK	-055C 125C	MM38510	24:		0:		
					15CY	1011 B					
				VBVRFQ	20HZ 2KHZ	MM38510	24:		0:		
					20G	2007 A					
				FINE LK	HE 5.E-8	MM38510	24:		0:		
					60 MIN	1014 A					
				GROSSLK	FLUOR 125C	MM38510	24:		0:		
					3X	1014 C					
				EM	025C	MM38510	24:		0:		
						N.R.					
SIGNETICS 54H54	DIP 14	B-1 -55/125	02/75	THRMSHK	-055C 125C	MM38510	29:		0:		
					15CY	1011 B					
				VBVRFQ	20HZ 2KHZ	MM38510	29:		0:		
					20G	2007 A					
				FINE LK	HE 5.E-8	MM38510	29:		0:		
					60 MIN	1014 A					
				GROSSLK	FLUOR 125C	MM38510	29:		1:		
					3X	1014 C					
				EM	025C	MM38510	28:		0:		
						N.R.					
SIGNETICS 54H55	DIP 14	B-1 -55/125	02/75	THRMSHK	-055C 125C	MM38510	25:		0:		
					15CY	1011 B					
				VBVRFQ	20HZ 2KHZ	MM38510	25:		0:		
					20G	2007 A					
				FINE LK	HE 5.E-8	MM38510	25:		0:		
					60 MIN	1014 A					
				GROSSLK	FLUOR 125C	MM38510	25:		1:		
					3X	1014 C					
				EM	025C	MM38510	24:		1:		
						N.R.					
T.I. 54H55	FPK 14	N -55/125	12/75	X-RAY			633:		0:		
				U		N.R.					
				EM			633:			19:4FEF 661/17, 662/1,663/1	
				U		N.R.					

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BASIC TECHNOLOGY		BIPOLAR		OPERATIONAL TYPE		HIGH SPEED TTL					
MANUFACTURER	PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	54H00	FPK : N	:12/75	X-RAY				48:		0:	
		14 : -55/125	U	EM			N.R.	48:		0:	
			U				N.R.				
VARIOUS	54H00	DIP : N	:12/75	X-RAY				200:		0:	
		14 : -55/125	U	EM			N.R.	200:		2:MFEF 664/2	
			U				N.R.				
VARIOUS	54H10	DIP : N	:12/75	EM				85:		0:	
		14 : -55/125	U	X-RAY			N.R.	85:		0:	
			U	EM			N.R.	85:		3:MFEF 665/3	
			U				N.R.				
VARIOUS	54H21	DIP : N	:12/75	X-RAY				374:		0:	
		14 : -55/125	U	EM			N.R.	374:		0:	
			U				N.R.				

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BASIC TECHNOLOGY		BIPOLAR		OPERATIONAL TYPE		LS TTL					
MANUFACTURER	PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL	74LS00	E-DIP : N	:02/75	TEMPCYC		000C 125C		80:		0:	
		14 : 0/70C	V	2000CY			N.R.	80:		0:	
			V				N.R.				

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BASIC TECHNOLOGY		BIPOLAR		OPERATIONAL TYPE		TTL					
MANUFACTURER	PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	5400	DIP : B-1	:09/75	SOLDER		260C 95Z	MS-883	242:		0:	
		14 : -55/125	V				2003				
ITT	5400	FPK : B-1	:09/75	SOLDER		260C 95Z	MS-883	220:		0:	
		14 : -55/125	V				2003				
ITT	5400	FPK : A-1	:09/75	SOLDER		260C 95Z	MS-883	32:		0:	
		14 : -55/125	V				2003				
ITT	5400	FPK : A-1	:09/75	VIS INS			MS-883	32:		0:	
		14 : -55/125	V				2008				
			V	RONDSTR			MS-883	32:		0:	
			V				2011				
ITT	5400	DIP : C-1	:09/75	SALTATM		035C 50GMS	MS-883	25:		0:	
		14 : -55/125	V			MSQ	1009 A				
ITT	5400	DIP : B-1	:09/75	SALTATM		035C 50GMS	MS-883	15:		0:	
		14 : -55/125	V			MSQ	1009 A				
ITT	5400	FPK : A-1	:09/75	SALTATM		035C 50GMS	MS-883	52:		9:	
		14 : -55/125	V			MSQ	1009 A				
ITT	5400	FPK : R-1	:09/75	SALTATM		035C 50GMS	MS-883	15:		0:	
		14 : -55/125	V			MSQ	1009 A				
ITT	5400	DIP : C-1	:09/75	MECHSHK		1.5KG .5MSFC	MS-883	25:		0:	
		14 : -55/125	V			6 AXES	2002 B				
			V	VBRFQ		100HZ 2KHZ	MS-883	25:		0:	
			V	20G			2007 A				
			V	CNSTACC		20KG 6 AXES	MS-883	25:		0:	
			V	1 MIN E			2001 D			0:	
			V	EM				25:		0:	
			V				N.R.				

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RRG	TEST SRC	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	10
ITT	5400	DIP :B-1 14 :55/125	09/75	MECHSHK	1.5KG .5MSEC	MS-883	47:		0:		
			V	6 AXES	2002 B						
			V	VBVRFQ	100HZ 2KHZ	MS-883	47:		0:		
			V	20C	2007 A						
			V	CNSTACC	20KG 6 AXES	MS-883	47:		0:		
			V	1 MIN E	2001 D						
			V	EM			47:		0:		
			V		N.R.						
ITT	5400	FPK :B-1 14 :55/125	09/75	MECHSHK	1.5KG .5MSEC	MS-883	25:		0:		
			V	6 AXES	2002 B						
			V	VBVRFQ	100HZ 2KHZ	MS-883	25:		0:		
			V	20C	2007 A						
			V	CNSTACC	20KG 6 AXES	MS-883	25:		0:		
			V	1 MIN E	2001 D						
			V	EM			25:		0:		
			V		N.R.						
ITT	5400	FPK :A-1 14 :55/125	09/75	THRMSHK	-055C 125C	MS-883	52:		0:		
			V	15CYC	1011 B						
			V	TEMPCYC	-065C 150C	MS-883	52:		0:		
			V	10CYC	1010 C						
			V	MOIST	-010C 065C	MS-883	52:		0:		
			V	98ZRH	1004						
			V	EM			52:		0:		
			V		N.R.						
ITT	5400	FPK :B-1 14 :55/125	09/75	THRMSHK	-055C 125C	MS-883	45:		0:		
			V	15CYC	1011 B						
			V	TEMPCYC	-065C 150C	MS-883	45:		0:		
			V	10CYC	1010 C						
			V	MOIST	-010C 065C	MS-883	45:		0:		
			V	98ZRH	1004						
			V	EM			45:		0:		
			V		N.R.						
ITT	5400	DIP :N 14 :55/125	09/75	THRMSHK	-055C 125C	MS-883	25:		0:		
			V	15CYC	1011 B						
			V	TEMPCYC	-065C 150C	MS-883	25:		0:		
			V	10CYC	1010 C						
			V	MOIST	-010C 065C	MS-883	25:		0:		
			V	98ZRH	1004						
			V	EM			25:		1:		
			V		N.R.						
ITT	5400	FPK :A-1 14 :55/125	09/75	MECHSHK	1.5KG .5MSEC	MS-883	1077:		0:		
			V	6 AXES	2002 B						
			V	VBVRFQ	100HZ 2KHZ	MS-883	1077:		0:		
			V	20C	2007 A						
			V	CNSTACC	20KG 6 AXES	MS-883	1077:		0:		
			V	1 MINE	2001 D						
			V	EM			1077:		0:		
			V		N.R.						
ITT	5400	DIP :B-1 14 :55/125	09/75	THRMSHK	-055C 125C	MS-883	47:		0:		
			V	15CYC	1011 B						
			V	TEMPCYC	-065C 150C	MS-883	47:		0:		
			V	10CYC	1010 C						
			V	MOIST	-010C 065C	MS-883	47:		0:		
			V	98ZRH	1004						
			V	EM			47:		0:		
			V		N.R.						
ITT	5400	DIP :C-1 14 :55/125	09/75	THRMSHK	-055C 125C	MS-883	50:		0:		
			V	15CYC	1011 B						
			V	TEMPCYC	-065C 150C	MS-883	50:		0:		
			V	10CYC	1010 C						
			V	MOIST	-010C 065C	MS-883	50:		0:		
			V	98ZRH	1004						
			V	EM			50:		0:		
			V		N.R.						
ITT	5400	FPK :A-1 14 :55/125	09/75	LEADFTG	8 OZ 90DEG	MS-883	32:		0:		
			V	6 ARCS	2004 B						
			V	FINE LK	HE 5.E-8	MS-883	32:		0:		
			V	60 MIN	1014 A						
			V	GROSSLK	FLUOR 125C	MS-883	32:		0:		
			V	3X	1014 C						

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RNC	TEST SRC	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICES HOURS	NO. FLD	FAILURE SUMMARY	/#
ITT	5400	DIP B-1 14	09/75 -55/125	LEADFTG V	8 OZ 90DEG 6 ARCS	MS-883 2004 B	180:		0:		
				FINE LK HE	5.E-8	MS-883	180:		0:		
				60 MIN FLUOR	125C	MS-883	180:		0:		
				GROSSLK 3X		1014 C			0:		
ITT	5400	FPK B-1 14	09/75 -55/125	LEADFTG V	8 OZ 90DEG 6 ARCS	MS-883 2004 B	220:		0:		
				FINE LK HE	5.E-8	MS-883	220:		0:		
				60 MIN FLUOR	125C	MS-883	220:		0:		
				GROSSLK 3X		1014 C			0:		
ITT	5401	DIP B-1 14	09/75 -55/125	SOLDER V	260C 95%	MS-883 2003	94:		0:		
ITT	5401	DIP C-1 14	09/75 -55/125	SALTATM V	035C 50GHS MSQ	MS-883 1009 A	25:		0:		
ITT	5401	FPK C-1 14	09/75 -55/125	SALTATM V	035C 50GHS MSQ	MS-883 1009 A	25:		0:		
ITT	5401	FPK B-1 14	09/75 -55/125	SALTATM V	035C 50GHS MSQ	MS-883 1009 A	60:		0:		
ITT	5401	DIP B-1 14	09/75 -55/125	SALTATM V	035C 50GHS MSQ	MS-883 1009 A	30:		0:		
ITT	5401	DIP C-1 14	09/75 -55/125	MECHSHK V	1.5KG .5MSEC 6 AXES	MS-883 2002 B	25:		0:		
				VBRFQ 20G	100HZ 2KHZ	MS-883 2007 A	25:		0:		
				CNSTACC 20KG 6 AXES	1 MIN E	MS-883 2001 D	25:		0:		
				EM		N.R.	25:		0:		
ITT	5401	FPK C-1 14	09/75 -55/125	MECHSHK V	1.5KG .5MSEC 6 AXES	MS-883 2002 B	25:		0:		
				VBRFQ 20G	100HZ 2KHZ	MS-883 2007 A	25:		0:		
				CNSTACC 20KG 6 AXES	1 MIN E	MS-883 2001 D	25:		0:		
				EM		N.R.	25:		0:		
ITT	5401	DIP B-1 14	09/75 -55/125	MECHSHK V	1.5KG .5MSEC 6 AXES	MS-883 2002 B	47:		0:		
				VBRFQ 20G	100HZ 2KHZ	MS-883 2007 A	47:		0:		
				CNSTACC 20KG 6 AXES	1 MIN E	MS-883 2001 D	47:		0:		
				EM		N.R.	47:		0:		
ITT	5401	FPK B-1 14	09/75 -55/125	MECHSHK V	1.5KG .5MSEC 6 AXES	MS-883 2002 B	50:		0:		
				VBRFQ 20G	100HZ 2KHZ	MS-883 2007 A	50:		0:		
				CNSTACC 20KG 6 AXES	1 MIN E	MS-883 2001 D	50:		0:		
				EM		N.R.	50:		0:		
ITT	5401	FPK B-1 14	09/75 -55/125	THRSHK V	-055C 125C 15CYC	MS-883 1011 B	57:		0:		
				TEMPCYC V	-065C 150C 10CYC	MS-883 1010 C	57:		0:		
				MOIST V	-010C 065C 982RH	MS-883 1004	57:		0:		
				EM		N.R.	57:		0:		
ITT	5401	DIP B-1 14	09/75 -55/125	THRSHK V	-055C 125C 15CYC	MS-883 1011 B	47:		0:		
				TEMPCYC V	-065C 150C 10CYC	MS-883 1010 C	47:		0:		
				MOIST V	-010C 065C 982RH	MS-883 1004	47:		0:		
				EM		N.R.	47:		0:		

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BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	//
ITT 5401	DIP 14	17-1 -55/125	09/75	THRM SHK	-055C 125C	MS-883	75		0		
					15CYC	1011 B					
				TEMP CYC	-065C 150C	MS-883	75		0		
					10CYC	1010 C					
				MOIST	-010C 065C	MS-883	75		0		
					98SRH	1004					
				EM			75		0		
						N.R.					
ITT 5401	FPK 14	10-1 -55/125	09/75	THRM SHK	-055C 125C	MS-883	44		0		
					15CYC	1011 B					
				TEMP CYC	-065C 130C	MS-883	44		0		
					10CYC	1010 C					
				MOIST	-010C 065C	MS-883	44		0		
					98SRH	1004					
				EM			44		0		
						N.R.					
ITT 5401	DIP 14	12-1 -55/125	09/75	LEADFTG	8 OZ 90DEC	MS-883	77		0		
					6 ARCS	2004 B					
				FINE LK	4F 5-E-8	MS-883	77		0		
					60 MIN	1014 A					
				GROSS LK	FLUOR 125C	MS-883	77		0		
					3X	1014 C					
ITT 5401	DIP 14	10-1 -55/125	09/75	LEADFTG	8 OZ 90DEC	MS-883	15		0		
					6 ARCS	2004 B					
				FINE LK	4F 5-E-8	MS-883	15		0		
					60 MIN	1014 A					
				GROSS LK	FLUOR 125C	MS-883	15		0		
					3X	1014 C					
ITT 5402	FPK 14	13-1 -55/125	09/75	SOLDER	260C 95%	MS-883	90		0		
						2003					
ITT 5402	DIP 14	13-1 -55/125	09/75	SOLDER	260C 95%	MS-883	79		0		
						2003					
ITT 5402	FPK 14	13-1 -55/125	09/75	SOLDER	260C 95%	MS-883	90		0		
						2003					
ITT 5402	FPK 14	1A-1 -55/125	09/75	SOLDER	260C 95%	MS-883	32		0		
						2003					
ITT 5402	FPK 14	1A-1 -55/125	09/75	WIS LKS		MS-883	11		0		
						2008					
				BONDSTR		MS-883	11		0		
						2011					
ITT 5402	DIP 14	10-1 -55/125	09/75	SALTATH	035C 50GMS	MS-883	24		0		
					MSQ	1009 A					
ITT 5402	FPK 14	10-1 -55/125	09/75	SALTATH	035C 50GMS	MS-883	22		0		
					MSQ	1009 A					
ITT 5402	DIP 14	13-1 -55/125	09/75	SALTATH	035C 50GMS	MS-883	30		0		
					MSQ	1009 A					
ITT 5402	FPK 14	13-1 -55/125	09/75	SALTATH	035C 50GMS	MS-883	30		0		
					MSQ	1009 A					
ITT 5402	DIP 14	10-1 -55/125	09/75	MFG SHK	1.5KG .5MSEC	MS-883	25		0		
					6 AXES	2002 B					
				VIBRFTQ	100HZ 2KHZ	MS-883	25		0		
					20G	2007 A					
				CONSTACC	20KG 6 AXES	MS-883	25		0		
					1 MIN E	2001 D					
				EM			25		0		
						N.R.					
ITT 5402	FPK 14	10-1 -55/125	09/75	MFG SHK	1.5KG .5MSEC	MS-883	38		0		
					6 AXES	2002 B					
				VIBRFTQ	100HZ 2KHZ	MS-883	38		0		
					20G	2007 A					
				CONSTACC	20KG 6 AXES	MS-883	38		0		
					1 MIN E	2001 D					
				EM			38		0		
						N.R.					

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RNC	TEST SKC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICES HOURS	NO. FLD	FAILURE SUMMARY
ITT	5402	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	50:		0:	
		14	-55/125	V		6 AXES	2002 B				
				V	VBRFQ	100HZ 2KHZ	MS-883	50:		0:	
				V		20G	2007 A				
				V	CNSTACC	20KG 6 AXES	MS-883	50:		0:	
				V		1 MIN E	2001 D				
				V	EM			30:		0:	
				V			N.R.				
ITT	5402	FPK	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	78:		0:	
		14	-55/125	V		6 AXES	2002 B				
				V	VBRFQ	100HZ 2KHZ	MS-883	78:		0:	
				V		20G	2007 A				
				V	CNSTACC	20KG 6 AXES	MS-883	78:		0:	
				V		1 MIN E	2001 D				
				V	EM			78:		0:	
				V			N.R.				
ITT	5402	FPK	B-1	09/75	THRM SHK	-055C 125C	MS-883	88:		0:	
		14	-55/125	V		15CYC	1011 B				
				V	TEMP CYC	-065C 150C	MS-883	88:		0:	
				V		10CYC	1010 C				
				V	MOIST	-010C 065C	MS-883	88:		0:	
				V		982RH	1004				
				V	EM			88:		0:	
				V			N.R.				
ITT	5402	DIP	B-1	09/75	THRM SHK	-055C 125C	MS-883	72:		0:	
		14	-55/125	V		15CYC	1011 B				
				V	TEMP CYC	-065C 150C	MS-883	72:		0:	
				V		10CYC	1010 C				
				V	MOIST	-010C 065C	MS-883	72:		0:	
				V		982RH	1004				
				V	EM			72:		0:	
				V			N.R.				
ITT	5402	DIP	C-1	09/75	THRM SHK	-055C 125C	MS-883	75:		0:	
		14	-55/125	V		15CYC	1011 B				
				V	TEMP CYC	-065C 150C	MS-883	75:		0:	
				V		10CYC	1010 C				
				V	MOIST	-010C 065C	MS-883	75:		0:	
				V		982RH	1004				
				V	EM			75:		0:	
				V			N.R.				
ITT	5402	FPK	C-1	09/75	THRM SHK	-055C 125C	MS-883	38:		0:	
		14	-55/125	V		15CYC	1011 B				
				V	TEMP CYC	-065C 150C	MS-883	38:		0:	
				V		10CYC	1010 C				
				V	MOIST	-010C 065C	MS-883	38:		0:	
				V		982RH	1004				
				V	EM			38:		1:	
				V			N.R.				
ITT	5402	FPK	A-1	9/75	LEADFTG	8 OZ 90DEC	MS-883	52:		0:	
		14	-55/125	V		6 ARCS	2004 B				
				V	FINE LK	5.5-8	MS-883	52:		0:	
				V		60 MIN	1014 A				
				V	GROSSLK	FLUOR 125C	MS-883	52:		0:	
				V		3X	1014 C				
ITT	5402	FPK	C-1	09/75	LEADFTG	8 OZ 90DEC	MS-883	42:		0:	
		14	-55/125	V		6 ARCS	2004 B				
				V	FINE LK	5.5-8	MS-883	42:		0:	
				V		60 MIN	1014 A				
				V	GROSSLK	FLUOR 125C	MS-883	42:		0:	
				V		3X	1014 C				
ITT	5402	DIP	C-1	09/75	LEADFTG	8 OZ 90DEC	MS-883	15:		0:	
		14	-55/125	V		6 ARCS	2004 B				
				V	FINE LK	5.5-8	MS-883	15:		0:	
				V		60 MIN	1014 A				
				V	GROSSLK	FLUOR 125C	MS-883	15:		0:	
				V		3X	1014 C				
ITT	5402	FPK	B-1	09/75	LEADFTG	8 OZ 90DEC	MS-883	99:		0:	
		14	-55/125	V		6 ARCS	2004 B				
				V	FINE LK	5.5-8	MS-883	99:		0:	
				V		60 MIN	1014 A				
				V	GROSSLK	FLUOR 125C	MS-883	99:		0:	
				V		3X	1014 C				

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO		P&G/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TFST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY / #
ITT	5402	DIP 14	B-1 -55/125	09/75 V	LEADFTG	8 OZ 90DEG 6 ARCS	MS-883 2004 B	155:		0:	
					FINE LK	HE 5.E-8	MS-883	155:		0:	
						60 MIN	1014 A				
					GROSSLK	FLUOR 125C	MS-883	155:		0:	
						3X	1014 C				
ITT	5403	DIP 14	B-1 -55/125	09/75 V	SOLDER	260C 95%	MS-883 2003	30:		0:	
ITT	5403	DIP 14	B-1 -55/125	09/75 V	SALTATM	035C 50GMS MSQ	MS-883 1009 A	15:		0:	
ITT	5403	DIP 14	B-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	63:		0:	
					VBVRFQ	100HZ 2KHZ	MS-883	53:		0:	
						20G	2007 A				
					CNSTACC	20KG 6 AXES	MS-883	63:		0:	
						1 MIN E	2001 D				
					EM			63:		0:	
							N.R.				
ITT	5403	DIP 14	B-1 -55/125	09/75 V	THRSHK	-055C 125C 15CYC	MS-883 1011 B	85:		0:	
					TEHPCYC	-065C 150C	MS-883	85:		0:	
						10CYC	1010 C				
					MOIST	-010C 065C	MS-883	85:		0:	
						98%RH	1004				
					EM			85:		1:	
							N.R.				
ITT	5403	DIP 14	B-1 -55/125	09/75 V	LEADFTG	8 OZ 90DEG 6 ARCS	MS-883 2004 B	85:		0:	
					FINE LK	HE 5.E-8	MS-883	85:		0:	
						60 MIN	1014 A				
					GROSSLK	FLUOR 125C	MS-883	85:		0:	
						3X	1014 C				
ITT	5410	DIP 14	B-1 -55/125	09/75 V	SOLDER	260C 95%	MS-883 2003	75:		0:	
ITT	5410	FPK 14	B-1 -55/125	09/75 V	SOLDER	260C 95%	MS-883 2003	205:		0:	
ITT	5410	DIP 14	C-1 -55/125	09/75 V	SALTATM	035C 50GMS MSQ	MS-883 1009 A	48:		0:	
ITT	5410	FPK 14	B-1 -55/125	09/75 V	SALTATM	035C 50GMS MSQ	MS-883 1009 A	15:		0:	
ITT	5410	DIP 14	B-1 -55/125	09/75 V	SALTATM	035C 50GMS MSQ	MS-883 1009 A	30:		0:	
ITT	5410	DIP 14	C-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	48:		0:	
					VBVRFQ	100HZ 2 KHZ	MS-883	48:		0:	
						20G	2007 A				
					CNSTACC	20KG 6 AXES	MS-883	48:		0:	
						1 MIN E	2001 D				
					EM			48:		0:	
							N.R.				
ITT	5410	FPK 14	B-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	32:		0:	
					VBVRFQ	100HZ 2KHZ	MS-883	32:		0:	
						20G	2007 A				
					CNSTACC	20KG 6 AXES	MS-883	32:		0:	
						1 MIN E	2001 D				
					EM			32:		0:	
							N.R.				
ITT	5410	DIP 14	B-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	47:		0:	
					VBVRFQ	100HZ 2KHZ	MS-883	47:		0:	
						20G	2007 A				
					CNSTACC	20KG 6 AXES	MS-883	47:		0:	
						1 MIN E	2001 D				
					EM			47:		0:	
							N.R.				

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY			BIPOLAR		OPERATIONAL TYPE TTL						
MANUFACTURER PART NO		PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	5410	FPK 14	B-1 -55/125	09/75	THRMSHK V TEMPCYC V MOIST V EM V	-055C 125C 15CYC -065C 150C 10CYC -010C 065C 98ZRH	MS-883 1011 B MS-883 1010 C MS-883 1004 N.R.	36: : 36: : 36: : 36: :	: : : : : : : :	0: : 0: : 0: : 0: :	: : : : : : : :
ITT	5410	DIP 14	B-1 -55/125	09/75	THRMSHK V TEMPCYC V MOIST V EM V	-055C 125C 15CYC -065C 150C 10CYC -010C 065C 98ZRH	MS-883 1011 B MS-883 1010 C MS-883 1004 N.R.	47: : 47: : 47: : 47: :	: : : : : : : :	0: : 0: : 0: : 0: :	: : : : : : : :
ITT	5410	DIP 14	C-1 -55/125	09/75	THRMSHK V TEMPCYC V MOIST V EM V	-055C 125C 15CYC -065C 150C 10CYC -010C 065C 98ZRH	MS-883 1011 B MS-883 1010 C MS-883 1004 N.R.	48: : 48: : 48: : 48: :	: : : : : : : :	0: : 0: : 0: : 0: :	: : : : : : : :
ITT	5410	FPK 14	C-1 -55/125	09/75	LEADFTG V FINE LK V GROSSLK V	8 OZ 90DEG 6 ARCS HE 5.E-8 60 MIN FLUOR 125C 3X	MS-883 2004 B MS-883 1014 A MS-883 1014 C	30: : 30: : 30: :	: : : : : :	0: : 0: : 0: :	: : : : : :
ITT	5410	FPK 14	B-1 -55/125	09/75	LEADFTG V FINE LK V GROSSLK V	8 OZ 90DEG 6 ARCS HE 5.E-8 60 MIN FLUOR 125C 3X	MS-883 2004 B MS-883 1014 A MS-883 1014 C	90: : 90: : 90: :	: : : : : :	0: : 0: : 0: :	: : : : : :
ITT	5410	DIP 14	B-1 -55/125	09/75	LEADFTG V FINE LK V GROSSLK V	8 OZ 90DEG 6 ARCS HE 5.E-8 60 MIN FLUOR 125C 3X	MS-883 2004 B MS-883 1014 A MS-883 1014 C	57: : 57: : 57: :	: : : : : :	0: : 0: : 0: :	: : : : : :
ITT	5410	DIP 14	C-1 -55/125	09/75	LEADFTG V FINE LK V GROSSLK V	8 OZ 90DEG 6 ARCS HE 5.E-8 60 MIN FLUOR 125C 3X	MS-883 2004 B MS-883 1014 A MS-883 1014 C	52: : 52: : 52: :	: : : : : :	0: : 0: : 0: :	: : : : : :
ITT	5420	E-DIP 14	N -55/125	09/75	AUTOCLV V	15PSIG 100C 100ZRH	N.R.	15: :	: :	0: :	: :
ITT	5420	E-DIP 14	N -55/125	09/75	TEMPCYC V EM V	-065C 150C 10CYC	MS-883 1010 C N.R.	38: : 38: :	: : : :	0: : 0: :	: : : :
ITT	5420	E-DIP 14	N -55/125	09/75	TEMPCYC V	000C 125C 10CYC	N.R.	15: :	: :	0: :	: :
ITT	5420	E-DIP 14	N -55/125	09/75	VIS INS V BONDSTR V		MS-883 2008 MS-883 2011	25: : 25: :	: : : :	0: : 0: :	: : : :
ITT	5420	FPK 14	B-1 -55/125	09/75	SOLDER V	260C 95Z	MS-883 2003	90: :	: :	0: :	: :
ITT	5420	E-DIP 14	N -55/125	09/75	SALTATH V	035C 50GHS HSQ	MS-883 1009 A	20: :	: :	0: :	: :
ITT	5420	FPK 14	C-1 -55/125	09/75	SALTATH V	035C 50GHS HSQ	MS-883 1009 A	25: :	: :	0: :	: :
ITT	5420	FPK 14	B-1 -55/125	09/75	SALTATH V	035C 50GHS HSQ	MS-883 1009 A	10: :	: :	0: :	: :

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PART NO	PKG / PINS	SCR CL / TMP RRG	DATE / SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
ITT	5420	FPK : C-1 14 : -55/125		09/75	MECHSHK : V	1.5KG .5MSFC : 6 AXES	MS-883 : 2002 B	25:		0:	
					VBVRFQ : V	100HZ 2KHZ : 20C	MS-883 : 2007 A	25:		0:	
					CNSTACC : V	20KG 6 AXES : 1 MIN E	MS-883 : 2001 D	25:		0:	
					EM : V		N.R.	25:		0:	
ITT	5420	FPK : B-1 14 : -55/125		09/75	MECHSHK : V	1.5KG .5MSEC : 6 AXES	MS-883 : 2002 B	22:		0:	
					VBVRFQ : V	100HZ 2KHZ : 20C	MS-883 : 2007 A	22:		0:	
					CNSTACC : V	20KG 6 AXES : 1 MIN E	MS-883 : 2001 D	22:		0:	
					EM : V		N.R.	22:		0:	
ITT	5420	FPK : B-1 14 : -55/125		05/75	THRMSHK : V	-055C 125C : 15CYC	MS-883 : 1011 B	46:		0:	
					TEMPCYC : V	-065C 150C : 10CYC	MS-883 : 1010 C	46:		0:	
					HOIST : V	-010C 065C : 982RH	MS-883 : 1004	46:		0:	
					EM : V		N.R.	46:		0:	
ITT	5420	E-DIP : N 14 : -55/125		09/75	THRMSHK : V	-055C 125C : 15CYC	MS-883 : 1011 B	25:		0:	
					TEMPCYC : V	-065C 150C : 10CYC	MS-883 : 1010 C	25:		0:	
					HOIST : V	-010C 065C : 982RH	MS-883 : 1004	25:		0:	
					EM : V		N.R.	25:		0:	
ITT	5420	FPK : C-1 14 : -55/125		09/75	THRMSHK : V	-055C 125C : 15CYC	MS-883 : 1011 B	25:		0:	
					TEMPCYC : V	-065C 150C : 10CYC	MS-883 : 1010 C	25:		0:	
					HOIST : V	-010C 065C : 982RH	MS-883 : 1004	25:		0:	
					EM : V		N.R.	25:		0:	
ITT	5420	E-DIP : N 14 : -55/125		09/75	MECHSHK : V	1.5KG .5MSEC : 6 AXES	MS-883 : 2002 B	25:		0:	
					VBVRFQ : V	100HZ 2KHZ : 20C	MS-883 : 2007 A	25:		0:	
					CNSTACC : V	20KG 6 AXES : 1 MIN E	MS-883 : 2001 D	25:		0:	
					EM : V		N.R.	25:		0:	
ITT	5420	E-DIP : N 14 : -55/125		09/75	LEADFTG : V	8 OZ 90DEC : 6 ARCS	MS-883 : 2004 B	15:		0:	
					FINE LK : V	HE 5.E-8 : 60 MIN	MS-883 : 1014 A	15:		0:	
					GROSSLK : V	FLUOR 125C : 3X	MS-883 : 1014 C	15:		0:	
ITT	5420	FPK : C-1 14 : -55/125		09/75	LEADFTG : V	8 OZ 90DEC : 6 ARCS	MS-883 : 2004 B	15:		0:	
					FINE LK : V	HE 5.E-8 : 60 MIN	MS-883 : 1014 A	15:		0:	
					GROSSLK : V	FLUOR 125C : 3X	MS-883 : 1014 C	15:		0:	
ITT	5420	FPK : B-1 14 : -55/125		09/75	LEADFTG : V	8 OZ 90DEC : 6 ARCS	MS-883 : 2004 B	90:		0:	
					FINE LK : V	HE 5.E-8 : 60 MIN	MS-883 : 1014 A	90:		0:	
					GROSSLK : V	FLUOR 125C : 3X	MS-883 : 1014 C	90:		0:	
ITT	5430	FPK : B-1 14 : -55/125		09/75	SOLDER : V	260C 95Z	MS-883 : 2003	190:		0:	
ITT	5430	DIP : B-1 14 : -55/125		09/75	SOLDER : V	260C 95Z	MS-883 : 2003	175:		0:	
ITT	5430	FPK : C-1 14 : -55/125		09/75	SALTATM : V	035C 50GMS : MSQ	MS-883 : 1009 A	38:		1:	

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PART NO	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
		FINS	TMP RRG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
ITT	5430	FPK	B-1	09/75	SALTATH	035C 50GMS	MS-883	45:		0:	
		14	-55/125	V		MSQ	1009 A				
ITT	5430	DIP	B-1	09/75	SALTATH	035C 50GMS	MS-883	128:		0:	
		14	-55/125	V		MSQ	1009 A				
ITT	5430	FPK	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	28:		0:	
		14	-55/125	V		6 AXES	2002 B				
					VBVRFQ	100HZ 2KHZ	MS-883	28:		0:	
					V	20G	2007 A				
					CNSTACC	20KG 6 AXES	MS-883	28:		0:	
					V	1 MIN E	2001 D				
					EM			28:		0:	
					V		N.R.				
ITT	5430	FPK	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	32:		0:	
		14	-55/125	V		6 AXES	2002 B				
					VBVRFQ	100HZ 2KHZ	MS-883	32:		0:	
					V	20G	2007 A				
					CNSTACC	20KG 6 AXES	MS-883	32:		0:	
					V	1 MIN E	2001 D				
					EM			32:		0:	
					V		N.R.				
ITT	5430	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	128:		0:	
		14	-55/125	V		6 AXES	2002 B				
					VBVRFQ	100HZ 2KHZ	MS-883	128:		0:	
					V	20G	2007 A				
					CNSTACC	20KG 6 AXES	MS-883	128:		0:	
					V	1 MIN E	2001 D				
					EM			128:		0:	
					V		N.R.				
ITT	5430	FPK	B-1	09/75	THRMSHK	-055C 125C	MS-883	47:		0:	
		14	-55/125	V		15CYC	1011 B				
					TEMPCYC	-065C 150C	MS-883	47:		0:	
					V	10CYC	1010 C				
					MOIST	-010C 065C	MS-883	47:		0:	
					V	98ZRH	1004				
					EM			47:		1:	
					V		N.R.				
ITT	5430	DIP	B-1	09/75	THRMSHA	-055C 125C	MS-883	140:		0:	
		14	-55/125	V		15CYC	1011 B				
					TEMPCYC	-065C 150C	MS-883	140:		0:	
					V	10CYC	1010 C				
					MOIST	-010C 065C	MS-883	140:		0:	
					V	98ZRH	1004				
					EM			140:		0:	
					V		N.R.				
ITT	5430	FPK	C-1	09/75	THRMSHK	-055C 125C	MS-883	47:		0:	
		14	-55/125	V		15CYC	1011 B				
					TEMPCYC	-065C 150C	MS-883	47:		0:	
					V	10CYC	1010 C				
					MOIST	-010C 065C	MS-883	47:		0:	
					V	98ZRH	1004				
					EM			47:		0:	
					V		N.R.				
ITT	5430	FPK	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	15:		0:	
		14	-55/125	V		6 ARCS	2004 B				
					FINE LK	HE 5-E-8	MS-883	15:		0:	
					V	60 MIN	1014 A				
					GROSSLK	FLUOR 125C	MS-883	15:		0:	
					V	3X	1014 C				
ITT	5430	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	147:		0:	
		14	-55/125	V		6 ARCS	2004 B				
					FINE LK	HE 5-E-8	MS-883	147:		0:	
					V	60 MIN	1014 A				
					GROSSLK	FLUOR 125C	MS-883	147:		0:	
					V	3X	1014 C				
ITT	5430	FPK	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	190:		0:	
		14	-55/125	V		6 ARCS	2004 B				
					FINE LK	HE 5-E-8	MS-883	190:		0:	
					V	60 MIN	1014 A				
					GROSSLK	FLUOR 125C	MS-883	190:		0:	
					V	3X	1014 C				
ITT	5450	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	62:		0:	
		14	-55/125	V			2003				

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY			BIPOLAR			OPERATIONAL TYPE			TTL					
MANUFACTURER	PART NO	PKG/	SCR	CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE		
		PINS	THP	RNG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY	/	
ITT	5450	FPK	A-1	09/75	SOLDER	260C	95Z	MS-883	32:		0:			
		14	-55/125	V				2003						
ITT	5450	FPK	A-1	09/75	VIS INS			MS-883	32:		0:			
		14	-55/125	V				2008						
					BONDSTR			MS-883	32:		0:			
					V			2011						
ITT	5450	DIP	C-1	09/75	SALTATM	035C	50GMS	MS-883	25:		0:			
		14	-55/125	V		MSQ		1009 A						
ITT	5450	FPK	C-1	09/75	SALTATM	035C	50GMS	MS-883	25:		0:			
		14	-55/125	V		MSQ		1009 A						
ITT	5450	DIP	B-1	09/75	SALTATM	035C	50GMS	MS-883	15:		0:			
		14	-55/125	V		MSQ		1009 A						
ITT	5450	FPK	A-1	09/75	SALTATM	035C	50GMS	MS-883	32:		0:			
		14	-55/125	V		MSQ		1009 A						
ITT	5450	FPK	A-1	09/75	MECHSHK	1.5KG	.5MSEC	MS-883	32:		0:			
		14	-55/125	V		6 AXES		2002 B						
					VBVRFQ	100HZ	2KHZ	MS-883	32:		0:			
					V	20G		2007 A						
					CNSTACC	20KG	6 AXES	MS-883	32:		0:			
					V	1 MIN E		2001 D						
					EM				32:		0:			
					V			N.R.						
ITT	5450	DIP	C-1	09/75	MECHSHK	1.5KG	.5MSEC	MS-883	25:		0:			
		14	-55/125	V		6 AXES		2002 B						
					VBVRFQ	100HZ	2KHZ	MS-883	25:		0:			
					V	20G		2007 A						
					CNSTACC	20KG	6 AXES	MS-883	25:		0:			
					V	1 MIN E		2001 D						
					EM				25:		0:			
					V			N.R.						
ITT	5450	FPK	C-1	09/75	MECHSHK	1.5KG	.5MSEC	MS-883	25:		0:			
		14	-55/125	V		6 AXES		2002 B						
					VBVRFQ	100HZ	2KHZ	MS-883	25:		0:			
					V	20G		2007 A						
					CNSTACC	20KG	6 AXES	MS-883	25:		0:			
					V	1 MIN E		2001 D						
					EM				25:		0:			
					V			N.R.						
ITT	5450	DIP	B-1	09/75	MECHSHK	1.5KG	.5MSEC	MS-883	25:		0:			
		14	-55/125	V		6 AXES		2002 B						
					VBVRFQ	100HZ	2KHZ	MS-883	25:		0:			
					V	20G		2007 A						
					CNSTACC	20KG	6 AXES	MS-883	25:		0:			
					V	1 MIN E		2001 D						
					EM				25:		0:			
					V			N.R.						
ITT	5450	DIP	B-1	09/75	THRMSHK	-055C	125C	MS-883	57:		0:			
		14	-55/125	V		15CYC		1011 B						
					TEMPCYC	-065C	150C	MS-883	57:		0:			
					V	10CYC		1010 C						
					MOIST	-010C	065C	MS-883	57:		0:			
					V	98ZRH		1004						
					EM				57:		1:			
					V			N.R.						
ITT	5450	DIP	C-1	09/75	THRMSHK	-055C	125C	MS-883	75:		0:			
		14	-55/125	V		15CYC		1011 B						
					TEMPCYC	-065C	150C	MS-883	75:		0:			
					V	10CYC		1010 C						
					MOIST	-010C	065C	MS-883	75:		0:			
					V	98ZRH		1004						
					EM				75:		0:			
					V			N.R.						
ITT	5450	FPK	C-1	09/75	THRMSHK	-055C	125C	MS-883	75:		0:			
		14	-55/125	V		15CYC		1011 B						
					TEMPCYC	-065C	150C	MS-883	75:		0:			
					V	10CYC		1010 C						
					MOIST	-010C	065C	MS-883	75:		0:			
					V	98ZRH		1004						
					EM				75:		0:			
					V			N.R.						

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BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ THP RNG	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/ #
ITT	5450	FPK : A-1 14 : -55/125	09/75 V	THRMSHK :15CYC :TEMPCYC :MOIST :EM	-055C 125C 150C 150C 065C 98ZRH	MS-883 1011 B MS-883 1010 C MS-883 1004	32: : 32: 32: 32:	: : : : :	0: : 0: : 0:	: : : : :	
ITT	5450	FPK : C-1 14 : -55/125	09/75 V	LEADFTG :FINE LK :GROSSLK	8 OZ 90DEG HE 5.E-8 FLUOR 125C	MS-883 2004 B MS-883 1014 A MS-883 1014 C	30: : 30: 30: :	: : : : :	0: : 0: 0: :	: : : : :	
ITT	5450	FPK : A-1 14 : -55/125	09/75 V	LEADFTG :FINE LK :GROSSLK	8 OZ 90DEG HE 5.E-8 FLUOR 125C	MS-883 2004 B MS-883 1014 A MS-883 1014 C	32: 32: 32: 32: :	: : : : :	0: 0: 0: 0: :	: : : : :	
ITT	5450	DIP : B-1 14 : -55/125	09/75 V	LEADFTG :FINE LK :GROSSLK	8 OZ 90DEG HE 5.E-8 FLUOR 125C	MS-883 2004 B MS-883 1014 A MS-883 1014 C	62: : 62: 62: :	: : : : :	0: 0: 0: 0: :	: : : : :	
ITT	5450	DIP : C-1 14 : -55/125	09/75 V	LEADFTG :FINE LK :GROSSLK	8 OZ 90DEG HE 5.E-8 FLUOR 125C	MS-883 2004 B MS-883 1014 A MS-883 1014 C	15: : 15: 15: :	: : : : :	0: 0: 0: 0: :	: : : : :	
ITT	5453	DIP : B-1 14 : -55/125	09/75 V	SOLDER :MSQ	260C 95% :	MS-883 2003	97: :	: :	0: :	: :	
ITT	5453	DIP : B-1 14 : -55/125	09/75 V	SALTATM :MSQ	035C 50GMS :	MS-883 1009 A	15: :	: :	0: :	: :	
ITT	5453	DIP : B-1 14 : -55/125	09/75 V	MECHSHK :VBVRFQ :CNSTACC :EM	1.5KG .5HSEC 6 AXES 200HZ 2KHZ 20C 20KG 6 AXES 1 MIN E	MS-883 2002 B MS-883 2007 A MS-883 2001 D	50: 50: 50: 50: 50:	: : : : :	0: 0: 0: 0: 0:	: : : : :	
ITT	5453	DIP : B-1 14 : -55/125	09/75 V	THRMSHK :15CYC :TEMPCYC :MOIST :EM	-055C 125C 150C 150C 065C 98ZRH	MS-883 1011 B MS-883 1010 C MS-883 1004	73: 73: 73: 73: 73:	: : : : :	0: 0: 0: 0: 0:	: : : : :	
ITT	5453	DIP : B-1 14 : -55/125	09/75 V	LEADFTG :FINE LK :GROSSLK	8 OZ 90DEG HE 5.E-8 FLUOR 125C	MS-883 2004 B MS-883 1014 A MS-883 1014 C	178: 178: 178: 178: :	: : : : :	0: 0: 0: 0: :	: : : : :	
ITT	5454	DIP : B-1 14 : -55/125	09/75 V	SOLDER :MSQ	260C 95% :	MS-883 2003	54: :	: :	0: :	: :	
ITT	5454	DIP : B-1 14 : -55/125	09/75 V	SALTATM :MSQ	035C 50GMS :	MS-883 1009 A	15: :	: :	0: :	: :	
ITT	5454	DIP : B-1 14 : -55/125	09/75 V	MECHSHK :VBVRFQ :CNSTACC :EM	1.5KG .5HSEC 6 AXES 200HZ 2KHZ 20C 20KG 6 AXES 1 MIN E	MS-883 2002 B MS-883 2007 A MS-883 2001 D	50: 50: 50: 50: 50:	: : : : :	0: 0: 0: 0: 0:	: : : : :	

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BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ THP RNG	TEST SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICES HOURS	NO. FLD	FAILURE SUMMARY
ITT	5454	DIP B-1 14	09/75 -55/125	V	THRM SHK	-055C 125C	MS-883	56:		0:	
				V	TEMP CYC	-065C 150C	MS-883	56:		0:	
				V	MOIST	-010C 065C	MS-883	56:		0:	
				V	EM	98ZRH	1004	56:		0:	
				V			N.R.				
ITT	5454	DIP B-1 14	09/75 -55/125	V	LEADFTG	8 OZ 90DEG	MS-883	75:		0:	
				V	FINE LK	HE 5.E-8	MS-883	75:		0:	
				V	GROSS LK	FLUOR 125C	MS-883	75:		0:	
				V		3X	1014 C				
ITT	7400	E-DIP N 14	09/75 0/70C	V	AUTOCLV	15PSIG 100C	N.R.	268:		1:	
ITT	7400	E-DIP N 14	09/75 0/70C	V	TEMP CYC	-065C 150C	MS-883	288:		0:	
				V	EM		1010 C	288:		0:	
				V			N.R.				
ITT	7400	E-DIP N 14	09/75 0/70C	V	TEMP CYC	000C 125C	N.R.	292:		0:	
				V		10CYC					
ITT	7400	DIP B-1 14	09/75 0/70C	V	LEADFTG	8 OZ 90DEG	MS-883	432:		0:	
				V	HERMET	6 ARCS	MS-883	432:		1:	
				V			1014				
ITT	7400	DIP C-1 14	09/75 0/70C	V	LEADFTG	8 OZ 90DEG	MS-883	388:		0:	
				V	HERMET	6 ARCS	MS-883	388:		4:	
				V			1014				
ITT	7400	DIP B-1 14	09/75 0/70C	V	SOLDER	260C 95%	MS-883	43:		0:	
				V			2003				
ITT	7400	E-DIP N 14	09/75 0/70C	V	SALTATM	035C 50GMS	MS-883	68:		1:	
				V	MSQ		1009 A				
ITT	7400	DIP C-1 14	09/75 0/70C	V	SALTATM	035C 50GMS	MS-883	11:		0:	
				V	MSQ		1009 A				
ITT	7400	E-DIP N 14	09/75 0/70C	V	SALTATM	035C 50GMS	MS-883	105:		3:	
				V	MSQ		1009 A				
ITT	7400	DIP C-1 14	09/75 0/70C	V	MECH SHK	1.5KG .5MSEC	MS-883	20:		0:	
				V	6 AXES		2002 B				
				V	VBVRFQ	100HZ 2KHZ	MS-883	20:		0:	
				V	20C		2007 A				
				V	CNSTACC	20KG 6 AXES	MS-883	20:		0:	
				V	1 MIN E		2001 D				
				V	EM			20:		0:	
				V			N.R.				
ITT	7400	DIP B-1 14	09/75 0/70C	V	SALTATM	035C 50GMS	MS-883	32:		0:	
				V	MSQ		1009 A				
ITT	7400	DIP B-1 14	09/75 0/70C	V	MECH SHK	1.5KG .5MSEC	MS-883	20:		0:	
				V	6 AXES		2002 B				
				V	VBVRFQ	100HZ 2KHZ	MS-883	20:		0:	
				V	20C		2007 A				
				V	CNSTACC	20KG 6 AXES	MS-883	20:		0:	
				V	1 MIN E		2001 D				
				V	EM			20:		0:	
				V			N.R.				
ITT	7400	DIP B 14	09/75 0/70C	V	THRM SHK	-055C 125C	MS-883	153:		0:	
				V	TEMP CYC	-065C 150C	MS-883	153:		0:	
				V	MOIST	-010C 065C	MS-883	153:		0:	
				V	EM	98ZRH	1004	153:		1:	
				V			N.R.				

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY			BIPOLAR			OPERATIONAL TYPE			TTL		
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RNC	SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVI HOURS	FAI SUMMARY	FAILURE / #
ITT	7400	E-DIP N 14	0/70C	09/75	THRMSHK V	-065C 125C 15CYC	MS-883 1011 B	192:	0:		
					TEMPCYC	-065C 150C	MS-883 1010 C	192:	0:		
					MOIST	-010C 065C	MS-883 1004	192:	0:		
					EM	98ZRH		192:	0:		
					V		N.R.				
ITT	7400	DIP B-1 14	0/70C	09/75	THRMSHK V	-065C 125C 15C	MS-883 1011 B	54:	0:		
					TEMPCYC	-065C 150C	MS-883 1010 C	54:	0:		
					MOIST	-010C 065C	MS-883 1004	54:	0:		
					EM	98ZRH		54:	0:		
					V		N.R.				
ITT	7400	DIP C-1 14	0/70C	09/75	THRMSHK V	-055C 125C 15CYC	MS-883 1011 B	25:	0:		
					TEMPCYC	-065C 150C	MS-883 1010 C	25:	0:		
					MOIST	-010C 065C	MS-883 1004	25:	0:		
					EM	98ZRH		25:	0:		
					V		N.R.				
ITT	7400	E-DIP N 14	0/70C	09/75	THRMSHK V	-055C 125C 15CYC	MS-883 1011 B	22:	0:		
					TEMPCYC	-065C 150C	MS-883 1010 C	22:	0:		
					MOIST	-010C 065C	MS-883 1004	22:	0:		
					EM	98ZRH		22:	0:		
					V		N.R.				
ITT	7400	DIP N 14	0/70C	09/75	MECHSHK V	1.5KG .5MSEC 6 AXES	MS-883 2002 B	76:	0:		
					VBRFQ	100HZ 2KHZ	MS-883 2007 A	76:	0:		
					CNSTACC	20KG 6 AXES	MS-883 2001 D	76:	0:		
					EM	1 MIN E		76:	0:		
					V		N.R.				
ITT	7400	E-DIP N 14	0/70C	09/75	MECHSHK V	1.5KG .5MSEC 6 AXES	MS-883 2002 B	11:	0:		
					VBRFQ	100HZ 2KHZ	MS-883 2007 A	11:	0:		
					CNSTACC	20KG 6 AXES	MS-883 2001 D	11:	0:		
					EM	1 MIN E		11:	0:		
					V		N.R.				
ITT	7400	E-DIP N 14	0/70C	09/75	MECHSHK V	1.5KG .5MSEC 6 AXES	MS-883 2002 B	38:	0:		
					VBRFQ	100HZ 2KHZ	MS-883 2007 A	38:	0:		
					CNSTACC	20KG 6 AXES	MS-883 2001 D	38:	0:		
					EM	1 MIN E		38:	0:		
					V		N.R.				
ITT	7400	E-DIP N 14	0/70C	09/75	LEADFTG V	8 OZ 90DEG 6 ARCS	MS-883 2004 B	22:	0:		
					FINE LK	4E 5.E-8	MS-883 1014 A	22:	0:		
					GROSSLK	FLJOK 125C	MS-883 1014 C	22:	0:		
					V	3X					
ITT	7400	DIP N 14	0/70C	09/75	LEADFTG V	8 OZ 90DEG 6 ARCS	MS-883 2004 B	63:	0:		
					FINE LK	4E 5.E-8	MS-883 1014 A	63:	0:		
					GROSSLK	FLJOK 125C	MS-883 1014 C	63:	0:		
					V	3X					

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BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RNC	TEST SRC	STRESS TYPE	SPEC. LEVEL	NO. REL.	DEVIDE TEST	NO. HOURS	FAILURE FLD	SUMMARY /#
ITT	7400	E-DIP	X	05/77	LOPRESS	1.09T 025C	MS-883	50:	2.40E 03	0:	
		14	0/70C	Q	S&F EM	025C 125C	1001 F	50:		0:	
				Q	LOPRESS	1.09T 025C	MS-883	50:	1.20E 04	0:	
				Q	S&F EM	025C 125C	1001 F	50:		0:	
				Q	LOPRESS	1.E-T025C	MS-883	50:	2.40E 03	0:	
				Q	S&F EM	025C 125C	1001 G	50:		0:	
				Q	LOPRESS	1.E-6T025C	MS-883	50:	1.20E 04	0:	
				Q	S&F EM	025C 125C	1001 G	50:		0:	
				Q	LOPRESS	1.E-6T025C	MS-883	50:		0:	
ITT	7401	E-DIP	N	09/75	AUTOCLV	15PSIG 100C	N.K.	104:		1:	
		14	0/70C	V	100ZKH						
ITT	7401	E-DIP	N	09/75	TEMPCYC	-065C 150C	MS-883	52:		0:	
		14	0/70C	V	10CYC		1010 C				
				V	EM		N.K.	52:		0:	
ITT	7401	E-DIP	N	09/75	TEMPCYC	000C 125C	MS-883	52:		0:	
		14	0/70C	V	10CYC		N.R.				
ITT	7401	E-DIP	N	09/75	SALTATM	035C 50GMS	MS-883	25:		0:	
		14	0/70C	V	MSQ		1009 A				
ITT	7401	E-DIP	N	09/75	THRMSHK	-055C 125C	MS-883	47:		0:	
		14	0/70C	V	15CYC		1011 B				
				V	TEMPCYC	-065C 150C	MS-883	47:		0:	
				V	10CYC		1010 C				
				V	MOIST	-010C 065C	MS-883	47:		0:	
				V	98ZRH		1004				
				V	EM		N.R.	47:		1:	
ITT	7401	E-DIP	N	09/75	MECHSHK	1.5KG .5MSEC	MS-883	25:		0:	
		14	0/70C	V	6 AXES		2002 B				
				V	VSVRFQ	100HZ 2KHZ	MS-883	25:		0:	
				V	20C		2007 A				
				V	CNSTACC	20KG 6 AXES	MS-883	25:		0:	
				V	1 MIN E		2001 D				
				V	EM		N.R.	25:		0:	
ITT	7401	E-DIP	N	09/75	LEADFTG	8 OZ 90DEG	MS-883	15:		0:	
		14	0/70C	V	6 ARCS		2004 B				
				V	FINE LK	HE 5-E-6	MS-883	15:		0:	
				V	60 MIN		1014 A				
				V	GROSSLK	FLUOR 125C	MS-883	15:		0:	
				V	3X		1014 C				
ITT	7403	DIP	B-1	09/75	SOLDER	26CL 95Z	MS-883	22:		0:	
		14	0/70C	V			2003				
ITT	7403	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	20:		0:	
		14	0/70C	V	MSQ		1009 A				
ITT	7403	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	10:		0:	
		14	0/70C	V	6 AXES		2002 B				
				V	VSVRFQ	100mZ 2kHz	MS-883	10:		0:	
				V	20C		2007 A				
				V	CNSTACC	20KG 6 AXES	MS-883	10:		0:	
				V	1 MIN E		2001 D				
				V	LN		N.R.	10:		0:	
ITT	7403	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	42:		0:	
		14	0/70C	V	15CYC		1011 B				
				V	TEMPCYC	-065C 150C	MS-883	42:		0:	
				V	10CYC		1010 C				
				V	MOIST	-010C 065C	MS-883	42:		0:	
				V	98ZRH		1004				
				V	EM		N.R.	42:		0:	

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BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/ PART NO	SKC CL/ PINS	DATE/ TMP RNC	TEST SRC	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
ITT	7403	DIP :B-1 14 :0/70C	:09/75 : V	:LEADFTG : FINE LK	: 8 OZ 90DEG : 6 ARCS : HE 5.E-8	: MS-883 : 2004 B : MS-883	: 62: : : 62:	: : :	: 9: : : 0:	: : :	: : :
			: V	: :60 MIN : GROSSLK	: : : FLUOR 125C	: 1014 A : MS-883	: : : 62:	: : :	: : : 0:	: : :	: : :
			: V	: :3X : SALTATM	: : : 035C 50GMS	: 1014 C : MS-883	: : : 25:	: : :	: : : 1:	: : :	: : :
ITT	7410	E-DIP : N 14 :0/70C	:09/75 : V	: :MSQ : SOLDER	: : : 260C 95%	: 1009 A : MS-883	: : : 44:	: : :	: : : 0:	: : :	: : :
ITT	7420	DIP :B-1 14 :0/70C	:09/75 : V	: : : SALTATM	: : : 035C 50GMS	: 2003 : MS-883	: : : 32:	: : :	: : : 0:	: : :	: : :
ITT	7420	DIP :B-1 14 :0/70C	:09/75 : V	: :MSQ : MECHSHK	: : : 1.5KG .5MSEC	: 1009 A : MS-883	: : : 10:	: : :	: : : 0:	: : :	: : :
ITT	7420	DIP :B-1 14 :0/70C	:09/75 : V	: :VBVRFQ : 20G	: : : 100HZ 2KHZ	: 2002 B : MS-883	: : : 10:	: : :	: : : 0:	: : :	: : :
			: V	: :CNSTACC : 1 MIN E	: : : 20KG 6 AXES	: 2007 A : MS-883	: : : 10:	: : :	: : : 0:	: : :	: : :
			: V	: :EM : N.R.	: : :	: 2001 D :	: : : 10:	: : :	: : : 0:	: : :	: : :
ITT	7420	DIP :B-1 14 :0/70C	:09/75 : V	: :THRM SHK : 15CYC	: : : -055C 125C	: MS-883 : 1011 B	: 54: :	: : :	: : : 0:	: : :	: : :
			: V	: :TEMPCYC : 10CYC	: : : -065C 150C	: MS-883 : 1010 C	: 54: :	: : :	: : : 0:	: : :	: : :
			: V	: :MOIST : 98%RH	: : : -010C 065C	: MS-883 : 1004	: 54: :	: : :	: : : 0:	: : :	: : :
			: V	: :EM : N.R.	: : :	: 1004 :	: 54: :	: : :	: : : 0:	: : :	: : :
ITT	7420	DIP :B-1 14 :0/70C	:09/75 : V	: :LEADFTG : 6 ARCS	: : : 8 OZ 90DEG	: MS-883 : 2004 B	: 64: :	: : :	: : : 0:	: : :	: : :
			: V	: :FINE LK : 60 MIN	: : : HE 5.E-8	: MS-883 : 1014 A	: 64: :	: : :	: : : 0:	: : :	: : :
			: V	: :GROSSLK : 3X	: : : FLUOR 125C	: MS-883 : 1014 C	: 64: :	: : :	: : : 0:	: : :	: : :
ITT	7430	E-DIP : N 14 :0/70C	:09/75 : V	: :AUTUCLV : 100ZRH	: : : 15PSIG 100C	: N.R. :	: 52: :	: : :	: : : 0:	: : :	: : :
ITT	7430	E-DIP : N 14 :0/70C	:09/75 : V	: :TEMPCYC : 10CYC	: : : -065C 150C	: MS-883 : 1010 C	: 52: :	: : :	: : : 1:	: : :	: : :
			: V	: :EM : N.R.	: : :	: 1010 C :	: 52: :	: : :	: : : 0:	: : :	: : :
ITT	7430	E-DIP : N 14 :0/70C	:09/75 : V	: :TEMPCYC : 10CYC	: : : 000C 125C	: N.R. :	: 52: :	: : :	: : : 0:	: : :	: : :
ITT	7430	E-DIP : N 14 :0/70C	:09/75 : V	: :SALTATM : MSQ	: : : 035C 50GMS	: MS-883 : 1009 A	: 72: :	: : :	: : : 1:	: : :	: : :
ITT	7430	E-DIP : N 14 :0/70C	:09/75 : V	: :THRM SHK : 15CYC	: : : -055C 125C	: MS-883 : 1011 B	: 50: :	: : :	: : : 0:	: : :	: : :
			: V	: :TEMPCYC : 10CYC	: : : -065C 150C	: MS-883 : 1010 C	: 50: :	: : :	: : : 0:	: : :	: : :
			: V	: :MOIST : 98%RH	: : : -010C 065C	: MS-883 : 1004	: 50: :	: : :	: : : 0:	: : :	: : :
			: V	: :EM : N.R.	: : :	: 1004 :	: 50: :	: : :	: : : 0:	: : :	: : :
ITT	7430	E-DIP : N 14 :0/70C	:09/75 : V	: :MECHSHK : 6 AXES	: : : 1.5KG .5MSEC	: MS-883 : 2002 B	: 50: :	: : :	: : : 0:	: : :	: : :
			: V	: :VBVRFQ : 20G	: : : 100HZ 2KHZ	: MS-883 : 2007 A	: 50: :	: : :	: : : 0:	: : :	: : :
			: V	: :CNSTACC : 1 MIN E	: : : 20KG 6 AXES	: MS-883 : 2001 D	: 50: :	: : :	: : : 0:	: : :	: : :
			: V	: :EM : N.R.	: : :	: 2001 D :	: 50: :	: : :	: : : 0:	: : :	: : :
ITT	7430	E-DIP : N 14 :0/70C	:09/75 : V	: :MECHSHK : 6 AXES	: : : 1.5KG .5MSEC	: MS-883 : 2002 B	: 50: :	: : :	: : : 0:	: : :	: : :
			: V	: :VBVRFQ : 20G	: : : 100HZ 2KHZ	: MS-883 : 2007 A	: 50: :	: : :	: : : 0:	: : :	: : :
			: V	: :CNSTACC : 1 MIN E	: : : 20KG 6 AXES	: MS-883 : 2001 D	: 50: :	: : :	: : : 0:	: : :	: : :
			: V	: :EM : N.R.	: : :	: 2001 D :	: 50: :	: : :	: : : 0:	: : :	: : :

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TEMP RNG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY /#
ITT	7430	E-DIP : N	09/75	LEADFTG	8 OZ 90DEG	MS-883	30:		0:	
		14 : 0/70C	V		6 ARCS	2004 B				
				FINE LK	HF 5-E-8	MS-883	30:		0:	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	30:		0:	
			V		3X	1014 C				
ITT	7450	DIP : N	09/75	THRM SHK	-055C 125C	MS-883	25:		0:	
		14 : 0/70C	V		15CYC	1011 B				
				TEMP CYC	-065C 150C	MS-883	25:		0:	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	25:		0:	
			V		98ZKH	1004				
				EM			25:		0:	
			V			N.R.				
ITT	7450	DIP : N	09/75	MECH SHK	1.5KG .5MSEC	MS-883	25:		0:	
		14 : 0/70C	V		6 AXES	2002 B				
				VBRV FQ	100HZ 2KHZ	MS-883	25:		0:	
			V		20C	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25:		0:	
			V		1 MIN E	2001 D				
				EM			25:		0:	
			V			N.R.				
ITT	7450	DIP : N	09/75	LEADFTG	8 OZ 90DEG	MS-883	30:		0:	
		14 : 0/70C	V		6 ARCS	2004 B				
				FINE LK	HF 5-E-8	MS-883	30:		0:	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	30:		0:	
			V		3X	1014 C				
ITT	7451	E-DIP : N	09/75	THRM SHK	-055C 125C	MS-883	25:		0:	
		14 : 0/70C	V		15CYC	1011 B				
				TEMP CYC	-065C 150C	MS-883	25:		0:	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	25:		0:	
			V		98ZKH	1004				
				EM			25:		0:	
			V			N.R.				
	7451	E-DIP : N	01/75	MECH SHK	1.5KG .5MSEC	MS-883	11:		0:	
		14 : 0/70C	V		6 AXES	2002 B				
				VBRV FQ	100HZ 2KHZ	MS-883	11:		0:	
			V		20C	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	11:		0:	
			V		1 MIN E	2001 D				
				EM			11:		1:	
			V			N.R.				
ITT	7453	DIP : N	09/75	SALTATH	035C 50GMS	MS-883	25:		0:	
		14 : 0/70C	V		MSQ	1009 A				
ITT	7453	DIP : N	09/75	THRM SHK	-055C 125C	MS-883	38:		0:	
		14 : 0/70C	V		15CYC	1011 B				
				TEMP CYC	-065C 150C	MS-883	38:		0:	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	38:		0:	
			V		98ZKH	1004				
				EM			38:		0:	
			V			N.R.				
ITT	7453	DIP : N	09/75	MECH SHK	1.5KG .5MSEC	MS-883	38:		0:	
		14 : 0/70C	V		6 AXES	2002 B				
				VBRV FQ	100HZ 2KHZ	MS-883	38:		0:	
			V		20C	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	38:		0:	
			V		1 MIN E	2001 D				
				EM			38:		0:	
			V			N.R.				
ITT	7453	DIP : N	09/75	LEADFTG	8 OZ 90DEG	MS-883	21:		0:	
		14 : 0/70C	V		6 ARCS	2004 B				
				FINE LK	HF 5-E-8	MS-883	21:		0:	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	21:		0:	
			V		3X	1014 C				
ITT	9003	E-DIP : N	9/75	SALTATH	035C 50GMS	MS-883	25:		0:	
		14 : 0/70C	V		MSQ	1009 A				

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PART NO	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE		
		PINS	TEMP	RNG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY	/
NATIONAL	5400	E-DIP	X	05/77	LOPRESS	1.09T 025C	MS-883		2.40E 03	0:			
		14	-55/125		Q		1001 F						
					S&F EN	025C 125C	MS-883		50:				
					Q	-055C	N.R.						
					LOPRESS	1.09T 025C	MS-883		50:	1.20E 04			
					Q		1001 F						
					S&F EN	025C 125C	MS-883		50:				
					Q	-054C	N.R.						
					LOPRESS	1.1-E-6T025C	MS-883		50:	2.40E 03			
					Q		1001 G						
					S&F EN	025C 125C	MS-883		50:				
					Q	-055C	N.R.						
					LOPRESS	1.1-E-6T025C	MS-883		50:	1.20E 04			
					Q		1001 G						
					S&F EN	025C 125C	MS-883		50:				
					Q	-055C	N.R.						
SIGNETICS	5400	E-DIP	X	05/77	LOPRESS	1.09T 025C	MS-883		50:	2.40E 03			
		14	-55/125		Q		1001 F						
					S&F EN	025C 125C	MS-883		50:				
					Q	-055C	N.R.						
					LOPRESS	1.09T 025C	MS-883		50:	1.20E 04			
					Q		1001 F						
					S&F EN	025C 125C	MS-883		50:				
					Q	-055C	N.R.						
					LOPRESS	1.1-E-6T025C	MS-883		50:	2.40E 03			
					Q		1001 G						
					S&F EN	025C 125C	MS-883		50:				
					Q	-055C	N.R.						
					LOPRESS	1.1-E-6T025C	MS-883		50:	1.20E 04			
					Q		1001 G						
					S&F EN	025C 125C	MS-883		50:				
					Q	-055C	N.R.						
SIGNETICS	5402	DIP	N	12/75	X-RAY				175:				
		14	-55/125		U		N.R.						
					U		N.R.		175:			1:MEF 672/1	
					U		N.R.						
SIGNETICS	5450	DIP	B-1	06/75	THRMSHK	-055C 125C	MM38510		30:				
		14	-55/125		Q	15CY	1011 B						
					Q	VBVRFQ 20KHZ	MM38510		30:				
					Q	20C	2007 A						
					Q	FINE LK HE 5-E-E	MM38510		30:				
					Q	60 MIN	1014 A						
					Q	GROSSLK FLUOR 125C	MM38510		30:				
					Q	3X	1014 C						
					Q	EM 025C	MM38510		30:				
					Q		N.R.						
SIGNETICS	5451	DIP	B-1	08/75	THRMSHK	-055C 125C	MM38510		29:				
		14	-55/125		Q	15CY	1011 B						
					Q	VBVRFQ 20KHZ	MM38510		29:				
					Q	20C	2007 A						
					Q	FINE LK HE 5-E-E	MM38510		29:				
					Q	60 MIN	1014 A						
					Q	GROSSLK FLUOR 125C	MM38510		29:				
					Q	3X	1014 C						
					Q	EM 025C	MM38510		29:				
					Q		N.R.						
SIGNETICS	7450	E-DIP	B-1	09/75	SOLDER	260C 95%	MS-883		10:				
		14	0/70C		V		200J						
SIGNETICS	7450	E-DIP	B-1	09/75	SALTAM	035C 50CNS	MS-883		52:				
		14	0/70C		V	MSQ	1009 A						
SIGNETICS	7450	E-DIP	B-1	09/75	MECHSHK	1.5KG .5HSEC	MS-883		17:				
		14	0/70C		V	6 AXES	2002 B						
					V	VBVRFQ 100HZ 2KHZ	MS-883		17:				
					V	20C	2007 A						
					V	CNSTACC 20KG 6 AXES	MS-883		17:				
					V	1 MIN E	2001 D						
					V	EM			17:				
					V		N.R.						
SIGNETICS	7450	E-DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883		55:				
		14	0/70C		V	15CYC	1011 B						
					V	TEAPCYC -065C 150C	MS-883		55:				
					V	10CYC	1010 C						
					V	MAIST -010C 065C	MS-883		55:				
					V	9812H	1004						
					V	EM			55:				
					V		N.R.						

GATE			ENVIRONMENTAL			RELIABILITY ANALYSIS CENTER				
BASIC TECHNOLOGY BIPOLAR			OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SIGNETICS 7450	E-DIP 14	B-1 0/70C	09/75 V	LEADFTG FINE LK	8 OZ 90DEC 6 ARCS 5.E-8	MS-883 2004 B	64:		0:	
			V		60 MIN	MS-883 1014 A	64:		0:	
			V	CROSSLK	FLUOR 125C	MS-883 1014 C	64:		0:	
			V		3X					
T.I. 7400	E-DIP 14	X 0/70C	05/77 Q	LOPRESS S&F EM	1.09T 025C 025C 125C	MS-883 1001 F	50:	2.40E 03	0:	
			Q		-055C	MS-883 N.R.	50:		0:	
			Q	LOPRESS	1.09T 025C	MS-883 1001 F	50:	1.20E 04	0:	
			Q	S&F EM	025C 125C	MS-883 N.R.	50:		0:	
			Q		-055C	MS-883 N.R.	50:		0:	
			Q	LOPRESS	1.E-6T025C	MS-883 1001 G	50:	2.40E 03	0:	
			Q	S&F EM	025C 125C	MS-883 N.R.	50:		0:	
			Q		-055C	MS-883 N.R.	50:		0:	
			Q	LOPRESS	1.E-6T025C	MS-883 1001 G	50:	1.20E 04	0:	
			Q	S&F EM	025C 125C	MS-883 N.R.	50:		0:	
			Q		-055C	N.R.				
VARIOUS 5402	DIP 14	N -55/125	12/75 U	EM X-RAY			625:			6:MFEF 673/1, 674/5
			U			N.R.	819:		0:	
			U	EM		N.R.	819:		36:MFEF 675/14, 676/22	
			U			N.R.				
			U			N.R.				
			U			N.R.				
			U			N.R.				
VARIOUS 5410	DIP 14	N -55/125	12/75 U	X-RAY EM			397:		0:	
			U			N.R.	397:		0:	
			U			N.R.				
			U			N.R.				
			U			N.R.				
VARIOUS 5430	DIP 14	N -55/125	12/75 U	EM X-RAY			62:		0:	
			U			N.R.	62:		0:	
			U	EM		N.R.	62:		0:	
			U			N.R.				

GATE			ENVIRONMENTAL			RELIABILITY ANALYSIS CENTER				
BASIC TECHNOLOGY BIPOLAR			OPERATIONAL TYPE ECL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD 100101	FPK 24	N -55/125	01/77 V	MECHSHK VSWRFQ	1.5KG .5NSEC 6 AXES 20HZ 2KHZ	MM38510 2002 B	50:		0:	
			V		20G	MM38510 2007 A	50:		0:	
			V	C-STACC	30KG 6 AXES	MM38510 2001 C	50:		0:	
			V	HERMET			50:		0:	
			V			N.R.				
FAIRCHILD 100101	FPK 24	N -55/125	01/77 V	THAMSHK TEMPCYC	-055C 125C 15CY 065C 150C	MM38510 1011 B	50:		0:	
			V		10CY	MM38510 1010 C	50:		0:	
			V	HERMET			50:		0:	
			V			N.R.				
FAIRCHILD 100101	FPK 24	N -55/125	01/77 V	LEADITC HERMET	8 OZ 90DECS 3 ARCS	MM38510 2004 B	23:		0:	
			V			N.R.	23:		0:	
			V			N.R.				
FAIRCHILD 100101	FPK 24	N -55/125	01/77 V	SALTATM VIS INS	035C 25CHS MSQ	MM38510 1009 A	23:		0:	
			V				23:		0:	
			V			N.R.				

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ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE ECL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	11
FAIRCHILD 100101	FPK : N 24	-55/125	01/77	SALTATM : VIS INS	035C 25GMS MSC	MM38510 1009 A	12:		0:		
				V		N.R.	12:		0:		
FAIRCHILD 100101	FPK : N 24	-55/125	01/77	MECHSHK : VBVRFQ	1.5KG .5MSEC 6 AXES 20HZ 2KHZ	MM38510 2002 B MM38510	22: 22:		0: 0:		
				V	20G	2007 A	22:		0:		
				CNSTACC : HERMET	30KG 6 AXES 1 MIN E	MM38510 2001 E	22: 22:		0: 0:		
				V		N.R.	22:		0:		
FAIRCHILD 100101	FPK : N 24	-55/125	01/77	THRMSHK : TEMPCYC	-055C 125C 15CY -065C 150C 10CY	MM38510 1011 B MM38510 1010 C	22: 22: 22:		0: 0: 0:		
				V		N.R.	22:		0:		
FAIRCHILD 100101	FPK : N 24	-55/125	01/77	TEMPCYC : CNSTACC	-065C 150C 10CY 30KG 6 AXES 1 MIN E	MM38510 1010 C MM38510 2001 E	20: 20: 20:		0: 0: 0:		
				V		N.R.	20:		0:		
FAIRCHILD 100101	FPK : N 24	-55/125	01/77	MECHSHK : VBVRFQ	1.5KG .5MSEC 6 AXES 20HZ 2KHZ	MM38510 2002 B MM38510	30: 30:		0: 0:		
				V	20G	2007 A	30:		0:		
				CNSTACC : HERMET	30KG 6 AXES 1 MIN E	MM38510 2001 E	30: 30:		0: 0:		
				V		N.R.	30:		0:		
FAIRCHILD 100101	FPK : N 24	-55/125	01/77	THRMSHK : TEMPCYC	-055C 125C 15CY -065C 150C 10CY	MM38510 1011 B MM38510 1010 C	30: 30: 30:		0: 0: 0:		
				V		N.R.	30:		0:		
FAIRCHILD 100101	E-DIP : N 24	0/70C	01/77	MECHSHK : VBVRFQ	1.5KG .5MSEC 6 AXES 20HZ 2KHZ	MM38510 2002 B MM38510	20: 20:		0: 0:		
				V	20G	2007 A	20:		0:		
				CNSTACC : HERMET	30KG 6 AXES 1 MIN E	MM38510 2001 E	20: 20:		0: 0:		
				V		N.R.	20:		0:		
FAIRCHILD 100101	E-DIP : N 24	0/70C	01/77	THRMSHK : TEMPCYC	-055C 125C 15CY -065C 150C 10CY	MM38510 1011 B MM38510 1010 C	35: 35: 35:		0: 0: 0:		
				V		N.R.	35:		0:		
FAIRCHILD 100102	FPK : N 24	-55/125	01/77	SOLDER : LEADFTG	260C 95% 5 SEC 8 OZ 90DEGS 3 ARCS	MM38510 2003 MM38510 2004 B	15: 15: 15:		0: 0: 0:		
				V		N.R.	15:		0:		
FAIRCHILD 100107	FPK : N 24	-55/125	01/77	TEMPCYC : CNSTACC	-065C 150C 10CY 30KG 6 AXES 1 MIN E	MM38510 1010 C MM38510 2001 E	30: 30: 30:		0: 0: 0:		
				V		N.R.	30:		0:		
FAIRCHILD 10101	DIP : N 16	-55/125	01/77	THRMSHK : TEMPCYC	-055C 125C 15CY -065C 150C 10CY	MM38510 1011 B MM38510 1010 C	50: 50: 50:		0: 0: 0:		
				V		N.R.	50:		0:		

GATE

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE ECL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	THP RNC	S4C	TYPE	LEVEL	REF.	TEST	HOURS	FLO	SUMMARY	#
FAIRCHILD	DIP	N	01/77	MECHSHK	1.5KG .5MSEC	MM38510	50:		0:		
10101	16	-55/125	V		6 AXES	2002 B					
				VBVRFQ	20mZ 2KHZ	MM38510	50:		0:		
				V	20G	2007 A					
				CNSTACC	30KG 6 AXES	MM38510	50:		0:		
				V	1 MIN E	2001 E					
				HERMET			50:		0:		
				V		N.R.					
FAIRCHILD	DIP	N	01/77	SOLDER	260C 95%	MM38510	15:		0:		
10101	16	-55/125	V		5 SEC	2003					
				HERMET			15:		0:		
				V		N.R.					
FAIRCHILD	DIP	N	01/77	MECHSHA	1.5KG .5MSEC	MM38510	43:		0:		
10101	16	-55/125	V		6 AXES	2002 B					
				VBVRFQ	20mZ 2KHZ	MM38510	43:		0:		
				V	20G	2007 A					
				CNSTACC	30KG 6 AXES	MM38510	43:		0:		
				V	1 MIN E	2001 E					
				HERMET			43:		0:		
				V		N.R.					
FAIRCHILD	E-DIP	N	01/77	AUTOCLV	15PSIG121C		30:		0:		
10101	16	0/70C	V			N.R.					
				EM			30:		0:		
				V		N.R.					
FAIRCHILD	E-DIP	N	01/77	AUTOCLV	15PSIG121C		30:		0:		
10101	16	0/70C	V			N.R.					
				EM			30:		0:		
				V		N.R.					
FAIRCHILD	E-DIP	N	01/77	AUTOCLV	15PSIG121C		30:		0:		
10101	16	0/70C	V			N.R.					
				EM			30:		0:		
				V		N.R.					
FAIRCHILD	E-DIP	N	01/77	AUTOCLV	15PSIG121C		30:		0:		
10101	16	0/70C	V			N.R.					
				EM			30:		0:		
				V		N.R.					
FAIRCHILD	E-DIP	N	01/77	AUTOCLV	15PSIG121C		30:		0:		
10101	16	0/70C	V			N.R.					
				EM			30:		0:		
				V		N.R.					
FAIRCHILD	E-DIP	N	01/77	AUTOCLV	15PSIG121C		50:		0:		
10101	16	0/70C	V			N.R.					
				EM			50:		0:		
				V		N.R.					
FAIRCHILD	DIP	N	01/77	MECHSHK	1.5KG .5MSEC	MM38510	43:		0:		
10102	16	N.R.	V		6 AXES	2002 B					
				VBVRFQ	20mZ 2KHZ	MM38510	43:		0:		
				V	20G	2007 A					
				CNSTACC	30KG 6 AXES	MM38510	43:		0:		
				V	1 MIN E	2001 E					
				HERMET			43:		0:		
				V		N.R.					
FAIRCHILD	DIP	N	01/77	MECHSHK	1.5KG .5MSEC	MM38510	8:		0:		
10102	16	N.R.	V		6 AXES	2002 B					
				VBVRFQ	20mZ 2KHZ	MM38510	8:		0:		
				V	20G	2007 A					
				CNSTACC	30KG 6 AXES	MM38510	8:		0:		
				V	1 MIN E	2001 E					
				HERMET			8:		0:		
				V		N.R.					
FAIRCHILD	E-DIP	N	01/77	AUTOCLV	15PSIG121C		50:		0:		
10102	16	0/70C	V			N.R.					
				EM			50:		0:		
				V		N.R.					

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ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYP ECL

MANUFACTURER	PART NO	PKG/	SKN CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
		PINS	TEMP RNG	SKN	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY /#
FAIRCHILD	10103	DIP	N	01/77	THRM SHK	-055C 125C	MM38510	58:		0:	
		16	-55/125	V		15CY	1011 B				
				V	TEMP CYC	-065C 150C	MM38510	50:		0:	
				V		10CY	1010 C				
				V	HERMET		N.R.	58:		0:	
FAIRCHILD	10193	DIP	N	01/77	MECH SHK	1.5KG .5MSEC	MM38510	60:		0:	
		16	-55, 125	V		5 AXES	2002 B				
				V	VBVR1Q	20HZ 2KHZ	MM38510	60:		0:	
				V		20C	2007 A				
				V	CNSTACC	30KG 6 AXES	MM38510	60:		0:	
				V		1 MIN E	2001 E				
				V	HERMET		N.R.	60:		1:MFEF 684/1	
FAIRCHILD	11C01	FPK	N	01/77	THRM SHK	-055C 125C	MM38510	45:		0:	
		16	N.R.	V		15CY	1011 B				
				V	TEMP CYC	-065C 150C	MM38510	45:		0:	
				V		10CY	1010 C				
				V	HERMET		N.R.	45:		0:	
FAIRCHILD	11C01	FPK	N	01/77	MECH SHK	1.5KG .5MSEC	MM38510	34:		0:	
		16	N.R.	V		6 AXES	2002 B				
				V	VBVR1Q	20HZ 2KHZ	MM38510	34:		0:	
				V		20C	2007 A				
				V	CNSTACC	30KG 6 AXES	MM38510	34:		0:	
				V		1 MIN E	2001 E				
				V	HERMET		N.R.	34:		0:	
FAIRCHILD	11C01	FPK	N	01/77	LEADFTG	18 OZ 90DEGS	MM38510	34:		0:	
		16	N.R.	V		3 ARCS	2004 B				
				V	HERMET		N.R.	34:		0:	
FAIRCHILD	11C01	FPK	N	01/77	THRM SHK	-055C 150C	MM38510	25:		0:	
		16	N.R.	V		15CY	1011 B				
				V	TEMP CYC	-065C 150C	MM38510	25:		0:	
				V		10CY	1010 C				
				V	HERMET		N.R.	25:		0:	
FAIRCHILD	11C01	FPK	N	01/77	MECH SHK	1.5KG .5MSEC	MM38510	22:		0:	
		16	N.R.	V		6 AXES	2002 B				
				V	VBVR1Q	20HZ 2KHZ	MM38510	22:		0:	
				V		20C	2007 A				
				V	CNSTACC	30KG 6 AXES	MM38510	22:		0:	
				V		1 MIN E	2001 E				
				V	HERMET		N.R.	22:		0:	
FAIRCHILD	11C01	FPK	N	01/77	GOLDER	26GC 95%	MM38510	15:		0:	
		16	N.R.	V		5 SEC	2003				
				V	LEADFTG	18 OZ 90DEGS	MM38510	15:		0:	
				V		3 ARCS	2004 B				
				V	SALTATH	035C 25GMS	MM38510	15:		0:	
				V		HSQ	1009 A				
				V	HERMET		N.R.	15:		0:	
FAIRCHILD	11C01	FPK	N	01/77	TEMP CYC	-065C 150C	MM38510	19:		0:	
		16	N.R.	V		10CY	1010 C				
				V	CNSTACC	30KG 6 AXES	MM38510	19:		0:	
				V		1 MIN E	2001 E				
				V	HERMET		N.R.	19:		0:	
FAIRCHILD	11C01	FPK	N	01/77	THRM SHK	-055C 125C	MM38510	23:		0:	
		16	N.R.	V		15CY	1011 B				
				V	TEMP CYC	-065C 150C	MM38510	23:		0:	
				V		10CY	1010 C				
				V	WIST	-010C 065C	MM38510	23:		0:	
				V		98ZRH	1004				
				V	HERMET		N.R.	23:		0:	

RELIABILITY ANALYSIS CENTER

RELIABILITY ANALYSIS CENTER139

RELIABILITY ANALYSIS CENTER

OPERATIONAL TYPE CMOS

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ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CHOS

MANUFACTURER	PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/f
RCA	4011A	DIP 14	N -55/125	05/75 V	TEMPCYC HERMET	-065C 150C 25CY	N-R.	40:		0:		
				V			N-R.	40:		0:		
RCA	4011A	DIP 14	N -55/125	05/75 V	THRM SHK HERMET	-065C 150C 25CY	N-R.	40:		0:		
				V			N-R.	40:		0:		
RCA	4011A	DIP 14	N -55/125	05/75 V	THRM SHK HERMET	-065C 150C 50CY	N-R.	40:		0:		
				V			N-R.	40:		0:		
RCA	4011A	DIP 14	N -55/125	05/75 V	AUTOCLV EM	15PSIG121C 025C	N-R.	30:		0:		
				V			N-R.	30:		0:		
RCA	4011A	DIP 14	N -55/125	05/75 V	AUTOCLV EM	15PSIG121C 025C	N-R.	30:		0:		
				V			N-R.	30:		0:		
RCA	4011A	DIP 14	N -55/125	05/75 V	AUTOCLV EM	15PSIG121C 025C	N-R.	30:		0:		
				V			N-R.	30:		0:		
RCA	4012A	FPK 14	A-1 -55/125	06/75 Q	THRM SHK 15CYC	-065C 150C	MM38510 1011 C	55:		0:		
RCA	4012A	FPK 14	A-1 -55/125	07/75 Q	OP CNST	125C	MM38510 1005 B	129:	1.29E 05	0:		
RCA	4012A	FPK 14	A-1 -55/125	07/75 Q	STCLIFE	150C	MM38510 1008 C	77:	7.70E 04	0:		
RCA	4012A	FPK 14	A-1 -55/125	08/75 Q	VBVRFQ	20HZ 2KHZ 20G	MM38510 2007 A	55:		0:		
RCA	4019A	DIP 16	N -55/125	05/75 V	TEMPCYC HERMET	-065C 150C 25CY	N-R.	20:		0:		
				V			N-R.	20:		0:		
RCA	4019A	DIP 16	N -55/125	05/75 V	THRM SHK HERMET	-065C 150C 25CY	N-R.	20:		0:		
				V			N-R.	20:		0:		
RCA	4019A	DIP 16	N -55/125	05/75 V	THRM SHK HERMET	-065C 150C 50CY	N-R.	20:		0:		
				V			N-R.	20:		0:		
RCA	4019A	DIP 16	N -55/125	05/75 V	AUTOCLV EM	15PSIG121C 025C	N-R.	15:		0:		
				V			N-R.	15:		0:		
RCA	4019A	DIP 16	N -55/125	05/75 V	AUTOCLV EM	15PSIG121C 025C	N-R.	15:		0:		
				V			N-R.	15:		0:		
RCA	4019A	DIP 16	N -55/125	05/75 V	AUTOCLV EM	15PSIG121C 025C	N-R.	15:		0:		
				V			N-R.	15:		0:		
RCA	4023A	FPK 14	A-1 -55/125	07/75 Q	THRM SHK 15CYC	-065C 150C	MM38510 1011 C	55:		0:		
RCA	4023A	FPK 14	A-1 -55/125	08/75 Q	VBVRFQ	20HZ 2KHZ 20G	MM38510 2007 A	55:		0:		
RCA	4023A	FPK 14	A-1 -55/125	07/75 Q	STCLIFE	150C	MM38510 1008 C	129:	1.29E 05	0:		
RCA	4023A	FPK 14	A-1 -55/125	07/75 Q	OP CNST	125C	MM38510 1005 B	77:	7.70E 04	0:		

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ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS

MANUFACTURER	PKG/ PART NO	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	//
RCA	4025A	DIP 14	A-1 -55/125	06/75 Q	THRMSHK 15CYC	-065C 150C 1011 C	MM38510 55		0		
RCA	4025A	DIP 14	A-1 -55/125	08/75 Q	VBVRFQ 20HZ 2KHZ 20G	MM38510 2007 A	55		0		
RCA	4025A	DIP 14	A-1 -55/125	08/75 Q	OP CNST 125C	MM38510 1005 B	129	1.29E 05	0		
RCA	4025A	DIP 14	A-1 -55/125	09/75 Q	STGLIFE 150C	MM38510 1008 C	77	7.70E 04	0		
RCA	4025A	DIP 14	N -55/125	05/75 V	TEMPCYC 25CY	-065C 150C N.R.	39		0		
					HERMET	N.R.	39		0		
RCA	4025A	DIP 14	N -55/125	05/75 V	THRMSHK 25CY	-065C 150C N.R.	40		0		
					HERMET	N.R.	40		0		
RCA	4025A	DIP 14	N -55/125	05/75 V	THRMSHK 50CY	-065C 150C N.R.	40		0		
					HERMET	N.R.	40		0		
RCA	4025A	DIP 14	N -55/125	05/75 V	AUTOCLV 15PSIG121C	N.R.	30		0		
					EM	025C	30		0		
RCA	4025A	DIP 14	N -55/125	05/75 V	AUTOCLV 15PSIG121C	N.R.	30		0		
					EM	025C	30		0		
RCA	4025A	DIP 14	N -55/125	05/75 V	AUTOCLV 15PSIG121C	N.R.	30		0		
					EM	025C	30		0		
SOLID STATE SC	4001A	DIP 14	B-1 -55/125	09/75 V	VIS INS 80X	MS-883 2014	3		0		
					BONDSTR	MS-883 2011	3		0		
SOLID STATE SC	4001A	DIP 14	N -55/125	09/75 V	SOLDER 260C 95%	MS-883 2003	15		0		
					VIS INS 10X	MS-883 N.R.	15		0		
SOLID STATE SC	4001A	DIP 14	B-1 -55/125	09/75 V	LEADFTG 8 OZ 90DEGS 3 ARCS	MS-883 2004 B	25		0		
					HERMET	MS-883 1014	25		0		
SOLID STATE SC	4001A	DIP 14	N -55/125	09/75 V	THRMSHK 15CY	MS-883 1001	34		0		
					TEMPCYC 10CY	MS-883 1010	34		0		
					NOIST -010C 065C	MS-883 1004	34		0		
					HERMET	MS-883 1014	34		0		
					EM	N.R.	34		0		
SOLID STATE SC	4002A	DIP 14	N -55/125	03/76 G	STAT EM 025C	N.R.	5		0		
					BAKE 300C	N.R.	5	8.40E 02	0		
					STAT EM 025C	N.R.	5		0		

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ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ THP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
SOLID STATE SC 4002A	DIP 14	N -55/125	03/76 G	STAT EM	025C	N-R.	5:		0:		
			G	PWR CYC	-055C 125C	N-R.	5:		2:MFEF 691/2		
			G	STAT EM	025C	N-R.	3:		0:		
			G	FINE LK	HE 5.E-8	MS-883	3:		0:		
			G	60 MIN		1014 A					
			G	GROSSLK	FLUOP 125C	MS-883	3:		0:		
			G	3X		1014 C					
			G	MIXED		N-R.	3:		0:		
			G	FINE LK	HE 5.E-8	MS-883	3:		0:		
			G	60 MIN		1014 A					
			G	GROSSLK	FLUOP 125C	MS-883	3:		0:		
			G	3X		1014 C					
SOLID STATE SC 4011A	DIP 14	N -55/125	09/75 V	MOIST	-010C 065C	MS-883X	64:	2.30E 05	0:		
			V	982RH		1004					
			V	EM		N-R.	64:		0:		
SOLID STATE SC 4012A	DIP 14	N -55/125	09/75 V	TEMPCYC	-065C 150C	MS-883	60:		0:		
			V	2.5KCY		1010 C					
			V	EM		N-R.	60:		0:		
SOLID STATE SC 4012A	DIP 14	N -55/125	09/75 V	TEMPCYC	-065C 150C	MS-883	100:		0:		
			V	25CY		1010 C					
			V	EM		N-R.	100:		0:		
SOLID STATE SC 4012A	DIP 14	N -55/125	09/75 V	MOIST	-010C 065C	MS-883X	100:	2.40E 04	0:		
			V	982RH		1004					
			V	EM		N-R.	100:		0:		
SOLID STATE SC 4012A	DIP 14	N -55/125	09/75 V	THKMSHK		MS-883	100:		0:		
			V	15CY		1001					
			V	TEMPCYC		MS-883	100:		0:		
			V	10CY		1010					
			V	MOIST	-010C 065C	MS-883	100:		0:		
			V	982RH		1004					
			V	HLRMET		MS-883	100:		0:		
			V	EM		1014					
			V			N-R.	100:		0:		
SOLID STATE SC 4023A	DIP 14	N -55/125	09/75 V	AUTOCLV	15PSIG025C		26:		0:		
			V	EM		N-R.					
			V			N-R.	26:		0:		
SOLID STATE SC 4023A	DIP 14	N -55/125	09/75 V	VIS INS		MS-883	15:		0:		
			V			2016					
SOLID STATE SC 4023A	DIP 14	N -55/125	09/75 V	VIS INS	80X	MS-883	3:		0:		
			V	BONDSTR		2014					
			V			MS-883	3:		0:		
			V			2011					
SOLID STATE SC 4023A	DIP 14	N -55/125	09/75 V	SOLDER	260C 95Z	MS-883	15:		0:		
			V	5 SEC		2003					
			V	VIS INS	10X	MS-883	15:		0:		
			V			N-R.					
SOLID STATE SC 4023A	DIP 14	N -55/125	09/75 V	LEADFTG	8 OZ 90DEGS	MS-883	15:		0:		
			V	3 ARCS		2004					
			V	HERMET		MS-883	15:		0:		
			V			1014					

GATE				ENVIRONMENTAL				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY MOS				OPERATIONAL TYPE CHOS							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
SOLID STATE SC 4023A	DIP : N 14	: -55/125	: 09/75	: MECHSHK : V	: 1.5KG .5MSEC : 6 AXES	: MS-883 : 2002 B	: 15:	:	: 0:	:	:
:	:	:	:	: VBVRFQ	: 20HZ 2KHZ	: MS-883	: 15:	:	: 0:	:	:
:	:	:	:	: V	: 20G	: 2007 A	:	:	:	:	:
:	:	:	:	: CNSTACC	: 30KG 6 AXES	: MS-883	: 15:	:	: 0:	:	:
:	:	:	:	: V	: 1 MIN E	: 2001 E	:	:	:	:	:
:	:	:	:	: HEKMET	:	: MS-883	: 15:	:	: 0:	:	:
:	:	:	:	: V	:	: 1014	:	:	:	:	:
:	:	:	:	: VIS INS	: 5X 10X	: MS-883	: 15:	:	: 0:	:	:
:	:	:	:	: V	:	: N.R.	:	:	:	:	:
:	:	:	:	: EM	:	:	: 15:	:	: 0:	:	:
:	:	:	:	: V	:	: N.R.	:	:	:	:	:
SOLID STATE SC 4025A	DIP : N 14	: -55/125	: 09/75	: VIS INS : V	:	: MS-883 : 2016	: 15:	:	: 0:	:	:
SOLID STATE SC 4025A	DIP : N 14	: -55/125	: 09/75	: VIS INS : V	: 80X	: MS-883 : 2014	: 3:	:	: 0:	:	:
:	:	:	:	: BONDSTR	:	: MS-883	: 3:	:	: 0:	:	:
:	:	:	:	: V	:	: 2011	:	:	:	:	:
SOLID STATE SC 4025A	DIP : N 14	: -55/125	: 09/75	: SOLDEK : V	: 260C 95% : 5 SEC	: MS-883 : 2003	: 15:	:	: 0:	:	:
:	:	:	:	: VIS INS	: 10X	: MS-883	: 15:	:	: 0:	:	:
:	:	:	:	: V	:	: N.R.	:	:	:	:	:
SOLITRON DEV 4002A	DIP : N 14	: -55/125	: 03/76	: STAT EM : G	: 025C	: N.R.	: 10:	:	: 0:	:	:
:	:	:	:	: PWR CYC	: -055C 125C	: N.R.	: 10:	:	: 1:MFEF 692/1	:	:
:	:	:	:	: G	:	: N.R.	:	:	: 1:MFEF 692/1	:	:
:	:	:	:	: STAT EM	: 025C	: N.R.	: 9:	:	:	:	:
:	:	:	:	: FINE LK	: HE 1.5E-8	: MS-883	: 8:	:	: 1:MFEF 693/1	:	:
:	:	:	:	: G	: 60 MIN	: 1014 A	:	:	:	:	:
:	:	:	:	: GROSSLK	: FLUOR 125C	: MS-883	: 7:	:	: 3:MFEF 693/3	:	:
:	:	:	:	: G	: 3X	: 1014 C	:	:	:	:	:
:	:	:	:	: MIXED	:	: N.R.	: 4:	:	: 0:	:	:
:	:	:	:	: G	:	: N.R.	:	:	:	:	:
:	:	:	:	: FINE LK	: HE 5.5-5	: MS-883	: 4:	:	: 0:	:	:
:	:	:	:	: G	: 60 MIN	: 1014 A	:	:	:	:	:
:	:	:	:	: GROSSLK	: FLUOR 125C	: MS-883	: 4:	:	: 0:	:	:
:	:	:	:	: G	: 3X	: 1014 C	:	:	:	:	:
SOLITRON DEV 4002A	DIP : N 14	: -55/125	: 03/76	: THRM SHK : G	: -065C 150C : 520CY	: MS-883 : 1011 C	: 2:	:	: 1:MFEF 694/1	:	:
:	:	:	:	: STAT EM	: 025C	: N.R.	: 1:	:	: 0:	:	:
:	:	:	:	: G	:	: N.R.	:	:	:	:	:
:	:	:	:	: FINE LK	: HE 5.E-8	: MS-883	: 1:	:	: 0:	:	:
:	:	:	:	: G	: 60 MIN	: 1014 A	:	:	:	:	:
:	:	:	:	: GROSSLK	: FLUOR 125C	: MS-883	: 1:	:	: 0:	:	:
:	:	:	:	: G	: 3X	: 1014 C	:	:	:	:	:
SOLITRON DEV 4002A	E-DIP : N 14	: 0/70C	: 03/76	: STAT EM : G	: 025C	: N.R.	: 17:	:	: 12:MFEF 695/12	:	:
:	:	:	:	: HUM LIFE	: 085C 852RH	: N.R.	: 5:	: 1.22E 04	: 5:MFEF 696/5	:	:
:	:	:	:	: G	:	: N.R.	:	:	:	:	:
:	:	:	:	:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:	:	:	:	:
:	:	:	:	: STAT EM	: 025C	: N.R.	: 0:	:	: 0:	:	:

GENERATOR				ENVIRONMENTAL				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
SIGNETICS 54182	DIP : A-1 16	: -55/125	: 08/75	: THRM SHK : Q	: -055C 125C : 15CY	: MM38510 : 1011 B	: 41:	:	: 0:	:	:
:	:	:	:	: VBVRFQ	: 20HZ 2KHZ	: MM38510	: 41:	:	: 0:	:	:
:	:	:	:	: Q	: 20G	: 2007 A	:	:	:	:	:
:	:	:	:	: FINE LK	: HE 5.E-8	: MM38510	: 41:	:	: 1:	:	:
:	:	:	:	: Q	: 60 MIN	: 1014 A	:	:	:	:	:
:	:	:	:	: GROSSLK	: FLUOR 125C	: MM38510	: 40:	:	: 0:	:	:
:	:	:	:	: Q	: 3X	: 1014 C	:	:	:	:	:
:	:	:	:	: EM	: 025C	: MM38510	: 40:	:	: 0:	:	:
:	:	:	:	: Q	:	: N.R.	:	:	:	:	:

GENERATOR

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE ECL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TEMP RNG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
FAIRCHILD	DIP	N	01/77	MECHSHK	1.5KG 5MSEC	MM38510	45:		0:	
10160	16	N.R.	V		6 AXES	2002 B				
			V	VBRFQ	20HZ 2KHZ	MM38510	45:		0:	
			V		20G	2007 A				
			V	CNSTACC	30KG 6 AXES	MM38510	45:		0:	
			V		1 MIN E	2001 E				
			V	HERMET			45:		0:	
			V			N.R.				
FAIRCHILD	DIP	N	01/77	LEADFTG	8 OZ 90DEGS	MM38510	45:		0:	
10160	16	N.R.	V		3 ARCS	2004 B				
			V	HERMET			45:		0:	
			V			N.R.				
FAIRCHILD	DIP	N	01/77	THRM SHK	-055C 125C	MM38510	45:		0:	
10160	16	N.R.	V		15CY	1011 B				
			V	TEMPCYC	-065C 150C	MM38510	45:		0:	
			V		10CY	1010 C				
			V	HERMET			45:		0:	
			V			N.R.				

INVERTER

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TEMP RNG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
NATIONAL	DIP	N	07/76	THRM SHK	000C 100C	MS-883	11:		0:	
54L04	14	-55/125	V		15CY	1011 A				
			V	TEMPCYC	-065C 150C	MS-883	11:		0:	
			V		10CY	1010 C				
			V	MOIST	-010C 065C	MS-883	11:		0:	
			V		982RH	1004				
			V	EH			11:		0:	
			V			N.R.				
NATIONAL	DIP	N	07/76	MECHSHK	1.5KG .5MSEC	MS-883	11:		0:	
54L04	14	-55/125	V		6 AXES	2002 B				
			V	VBRFQ	20HZ 2KHZ	MS-883	11:		0:	
			V		5CC	2007 B				
			V	CNSTACC	30KG 6 AXES	MS-883	11:		0:	
			V		1 MIN E	2001 E				
			V	EH			11:		0:	
			V			N.R.				
T.I.	E-DIP	N	11/76	AUTOCLV	15PSIG		40:		0:	
74L04	14	0/70C	V		1002RH	N.R.				
			V	STAT EM	025C		40:		0:	
			V			N.R.				
T.I.	E-DIP	N	11/76	TEMPCYC	-065C 150C	MS-883	58:		2:	
74L04	14	0/70C	V		1000CY	1010 C				
			V	STAT EM	025C		56:		0:	
			V			N.R.				

INVERTER

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TEMP RNG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
ITT	FPK	B-1	09/75	SOLDER	260C 95Z	MS-883	15:		0:	
54H04	14	-55/125	V			2003				
			V							
ITT	FPK	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	55:		0:	
54H04	14	-55/125	V		6 ARCS	2004 B				
			V	FINE LK	HE 5.E-B	MS-883	55:		0:	
			V		60 MIN	1014 A				
			V	GROSSLK	FLUOR 125C	MS-883	55:		0:	
			V		3X	1014 C				

INVERTER

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	THP RNC	SKC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY	/#
ITT	5404	DIP : B-1	:09/75	SOLDER	:260C 95%	MS-883	: 204:		: 0:		
		14 : -55/125	: V			2003					
ITT	5404	FPK : B-1	:09/75	SOLDER	:260C 95%	MS-883	: 230:		: 0:		
		14 : -55/125	: V			2003					
ITT	5404	DIP : N	:09/75	SALTATH	:035C 50GMS	MS-883	: 11:		: 0:		
		14 : -55/125	: V		:MSQ	1009 A					
ITT	5404	DIP : C-1	:09/75	SALTATH	:035C 50GMS	MS-883	: 25:		: 0:		
		14 : -55/125	: V		:MSQ	1009 A					
ITT	5404	FPK : B-1	:09/75	SALTATH	:035C 50GMS	MS-883	: 52:		: 0:		
		14 : -55/125	: V		:MSQ	1009 A					
ITT	5404	DIP : C-1	:09/75	MECHSHK	:1.5KG .5MSEC	MS-883	: 25:		: 0:		
		14 : -55/125	: V		:6 AXES	2002 B					
				VBVRFQ	:100HZ 2KHZ	MS-883	: 25:		: 0:		
				:20G		2007 A					
				CNSTACC	:20KG 6 AXES	MS-883	: 25:		: 0:		
				:1 MIN E		2001 D					
				EM			: 25:		: 0:		
				: V		N.R.					
ITT	5404	FPK : B-1	:09/75	THRMSHK	: -055C 125C	MS-883	: 96:		: 0:		
		14 : -55/125	: V		:15CYC	1011 B					
				TEMPCYC	: -065C 150C	MS-883	: 96:		: 0:		
				: V	:10CYC	1010 C					
				MOIST	: -010C 065C	MS-883	: 96:		: 0:		
				: V	:98XRH	1004					
				EM			: 96:		: 0:		
				: V		N.R.					
ITT	5404	DIP : N	:09/75	THRMSHK	: -055C 125C	MS-883	: 80:		: 0:		
		14 : -55/125	: V		:15CYC	1011 B					
				TEMPCYC	: -065C 150C	MS-883	: 80:		: 0:		
				: V	:10CYC	1010 C					
				MOIST	: -010C 065C	MS-883	: 80:		: 0:		
				: V	:98XRH	1004					
				EM			: 80:		: 3:		
				: V		N.R.					
ITT	5404	DIP : C-1	:09/75	THRMSHK	: -055C 125C	MS-883	: 50:		: 0:		
		14 : -55/125	: V		:15CYC	1011 B					
				TEMPCYC	: -065C 150C	MS-883	: 50:		: 0:		
				: V	:10CYC	1010 C					
				MOIST	: -010C 065C	MS-883	: 50:		: 0:		
				: V	:98XRH	1004					
				EM			: 50:		: 0:		
				: V		N.R.					
ITT	5404	FPK : B-1	:09/75	MECHSHK	:1.5KG .5MSEC	MS-883	: 50:		: 0:		
		14 : -55/125	: V		:6 AXES	2002 B					
				VBVRFQ	:100HZ 2KHZ	MS-883	: 50:		: 0:		
				:20G		2007 A					
				CNSTACC	:20KG 6 AXES	MS-883	: 50:		: 0:		
				:1 MIN E		2001 D					
				EM			: 50:		: 0:		
				: V		N.R.					
ITT	5404	DIP : N	:09/75	MECHSHK	:1.5KG .5MSEC	MS-883	: 22:		: 0:		
		14 : -55/125	: V		:6 AXES	2002 B					
				VBVRFQ	:100HZ 2KHZ	MS-883	: 22:		: 0:		
				:20G		2007 A					
				CNSTACC	:20KG 6 AXES	MS-883	: 22:		: 0:		
				:1 MIN E		2001 D					
				EM			: 22:		: 0:		
				: V		N.R.					
ITT	5404	DIP : B-1	:09/75	LEADFTG	: 8 OZ 90DEG	MS-883	: 96:		: 0:		
		14 : -55/125	: V		:6 ARCS	2004 B					
				FINE LK	:HE 5.E-8	MS-883	: 96:		: 0:		
				: V	:60 MIN	1014 A					
				CRCSLK	:FLUOR 125C	MS-883	: 96:		: 0:		
				: V	:3X	1014 C					
ITT	5404	FPK : B-1	:09/75	LEADFTG	: 8 OZ 90DEG	MS-883	: 230:		: 0:		
		14 : -55/125	: V		:6 ARCS	2004 B					
				FINE LK	:HE 5.E-8	MS-883	: 230:		: 0:		
				: V	:60 MIN	1014 A					
				CRCSLK	:FLUOR 125C	MS-883	: 230:		: 0:		
				: V	:3X	1014 C					

INVERTER

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY SIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RNC	SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	5404	DIP :C-1	09/75		LEADFTG	8 OZ 90DEG	MS-883	30:		0:	
		14 :-55/125	V		FINE LK	HE 5-E-8	2004 B	30:		0:	
			V			60 MIN	MS-883				
			V		CROSSLK	FLUOR 125C	1014 A	30:		0:	
			V			3X	MS-883				
							1014 C				
ITT	5405	FPK :C-1	09/75		SALTATM	035C 50GHS	MS-883	47:		0:	
		14 :-55/125	V		HSQ		1009 A				
ITT	5405	FPK :B-1	09/75		SALTATM	035C 50GHS	MS-883	22:		0:	
		14 :-55/125	V		HSQ		1009 A				
ITT	5405	FPK :C-1	09/75		MECHSHK	1.5KG .5MSEC	MS-883	50:		0:	
		14 :-55/125	V		6 AXES		2002 B				
			V		VBVRFQ	100HZ 2KHZ	MS-883	50:		0:	
			V		20C		2007 A				
			V		CNSTACC	20KG 6 AXES	MS-883	50:		0:	
			V		1 MIN E		2001 D				
			V		EM			50:		0:	
			V				N.R.				
ITT	5405	FPK :B-1	09/75		MECHSHK	1.5KG .5MSEC	MS-883	32:		0:	
		14 :-55/125	V		6 AXES		2002 B				
			V		VBVRFQ	100HZ 2KHZ	MS-883	32:		0:	
			V		20C		2007 A				
			V		CNSTACC	20KG 6 AXES	MS-883	32:		0:	
			V		1 MIN E		2001 D				
			V		EM			32:		0:	
			V				N.R.				
ITT	5405	FPK :B-1	09/75		THRM SHK	-055C 125C	MS-883	4:		0:	
		14 :-55/125	V		15CYC		1011 B				
			V		TEMPCYC	-065C 150C	MS-883	4:		0:	
			V		10CYC		1010 C				
			V		MOIST	-010C 065C	MS-883	4:		0:	
			V		98ZRH		1004				
			V		EM			4:		0:	
			V				N.R.				
ITT	5405	FPK :C-1	09/75		THRM SHK	-055C 125C	MS-883	50:		0:	
		14 :-55/125	V		15CYC		1011 B				
			V		TEMPCYC	-065C 150C	MS-883	50:		0:	
			V		10CYC		1010 C				
			V		MOIST	-010C 065C	MS-883	50:		0:	
			V		98ZRH		1004				
			V		EM			50:		0:	
			V				N.R.				
ITT	5405	FPK :C-1	09/75		LEADFTG	8 OZ 90DEG	MS-883	30:		0:	
		14 :-55/125	V		FINE LK	HE 5-E-8	2004 B				
			V			60 MIN	MS-883	30:		0:	
			V		CROSSLK	FLUOR 125C	1014 A	30:		0:	
			V			3X	MS-883				
							1014 C				
ITT	7404	E-DIP :N	09/75		TEMPCYC	-065C 150C	MS-883	52:		0:	
		14 :0/70C	V		10CYC		1010 C				
			V		EM			52:		0:	
			V				N.R.				
ITT	7405	DIP :C-1	09/75		SALTATM	035C 50GHS	MS-883	25:		0:	
		14 :0/70C	V		HSQ		1009 A				
ITT	7405	DIP :C-1	09/75		MECHSHK	1.5KG .5MSEC	MS-883	25:		0:	
		14 :0/70C	V		6 AXES		2002 B				
			V		VBVRFQ	100HZ 2KHZ	MS-883	25:		0:	
			V		20C		2007 A				
			V		CNSTACC	20KG 6 AXES	MS-883	25:		0:	
			V		1 MIN E		2001 D				
			V		EM			25:		0:	
			V				N.R.				
ITT	7405	DIP :C-1	09/75		THRM SHK	-055C 125C	MS-883	25:		0:	
		14 :0/70C	V		15CYC		1011 B				
			V		TEMPCYC	-065C 150C	MS-883	25:		0:	
			V		10CYC		1010 C				
			V		MOIST	-010C 065C	MS-883	25:		0:	
			V		98ZRH		1004				
			V		EM			25:		0:	
			V				N.R.				

INVERTER

ENVIRONMENTAL

RELIABILITY ANALYSIS-CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCN CL/ TMP RNC	DATE/ SKC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT 7405	DIP 14	C-1 0/70C	09/75	LEADFTG V	8 OZ 90DEG 16 ARCS FINE LK HE 5-E-8 60 MIN GROSSLK FLUOR 125C 3X	MS-883 2004 B MS-883 1014 A MS-883 1014 C	45: 45: 45: 45: 45: 45:		0: 0: 0: 0: 0: 0:	
ITT 9016	DIP 14	B-1 N.R.	09/75	SOLDER V	260C 952	MS-883 2003	10: 10:		0: 0:	
ITT 9016	DIP 14	C-1 -55/125	09/75	SALTAIN V	035C 50GMS MSQ	MS-883 1009 A	36: 36:		0: 0:	
ITT 9016	DIP 14	C-1 -55/125	09/75	MECHSHK V	1.5KG .5MSEC 6 AXES VBVRFQ 100HZ 2KHZ 20C CNSTACC 20KG 6 AXES 1 MIN E EM N.R.	MS-883 2002 B MS-883 2007 A MS-883 2001 D N.R.	72: 72: 72: 72: 72: 72: 72:		0: 0: 0: 0: 0: 0: 0:	
ITT 9016	DIP 14	C-1 -55/125	09/75	TLRMSHK V	-955C 125C 15CYC TEMPCYC -065C 150C 10CYC MOIST -010C 065C 982RH EM N.R.	MS-883 1011 B MS-883 1010 C MS-883 1004 N.R.	72: 72: 72: 72: 72: 72: 72:		0: 0: 0: 0: 0: 0: 0:	
ITT 9016	DIP 14	C-1 -55/125	09/75	LEADFTG V	8 OZ 90DEG 6 ARCS FINE LK HE 5-E-8 60 MIN GROSSLK FLUOR 125C 3X	MS-883 2004 B MS-883 1014 A MS-883 1014 C	32: 32: 32: 32: 32: 32:		0: 0: 0: 0: 0: 0:	
ITT 9016	DIP 14	E-1 N.R.	09/75	LEADFTG V	8 OZ 90DEG 6 ARCS FINE LK HE 5-E-8 60 MIN GROSSLK FLUOR 125C 3X	MS-883 2004 B MS-883 1014 A MS-883 1014 C	32: 32: 32: 32: 32: 32:		0: 0: 0: 0: 0: 0:	
NATIONAL 5404	DIP 14	N -55/125	12/75	TLRMSHK V	000C 100C 15CY TEMPCYC -065C 150C 10CY MOIST -010C 065C 962RH EM N.R.	MS-883 1011 A MS-883 1010 C MS-883 1004 N.R.	15: 15: 15: 15: 15: 15: 15:		0: 0: 0: 0: 0: 0: 0:	
NATIONAL 5404	DIP 14	N -55/125	07/76	TLRMSHK V	000C 100C 15CY TEMPCYC -065C 150C 10CY MOIST -010C 065C 982RH EM N.R.	MS-883 1011 A MS-883 1010 C MS-883 1004 N.R.	5: 5: 5: 5: 5: 5: 5:		0: 0: 0: 0: 0: 0: 0:	
NATIONAL 5404	DIP 14	N -55/125	12/75	MECHSHK V	1.5KG .5MSEC 6 AXES VBVRFQ 20HZ 2KHZ 50C CNSTACC 30KG 6 AXES 1 MIN E EM N.R.	MS-883 2002 B MS-883 2007 B MS-883 2001 E N.R.	15: 15: 15: 15: 15: 15: 15:		0: 0: 0: 0: 0: 0: 0:	
NATIONAL 5404	DIP 14	N -55/125	07/76	MECHSHK V	1.5KG .5MSEC 6 AXES VBVRFQ 20HZ 2KHZ 50C CNSTACC 30KG 6 AXES 1 MIN E EM N.R.	MS-883 2002 B MS-883 2007 B MS-883 2001 E N.R.	5: 5: 5: 5: 5: 5: 5:		0: 0: 0: 0: 0: 0: 0:	

INVENTOR				ENVIRONMENTAL				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TEMP RNG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FIL	SUMMARY	//
VARIOUS	DIP	X	12/75	X-RAY			855		0		
5404	14	-55/125	U			N.R.					
			U	1EM		N.R.	865			5:HEF 671/4.	
										675/1	

INVENTOR				ENVIRONMENTAL				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY MOS				OPERATIONAL TYPE CMOS							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TEMP RNG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FIL	SUMMARY	//
NATIONAL	E-DIP	X	05/77	LOPRESS	1.09T 025C	MS-883	50	2.40L 03	0		
4007	14	-40/50C	Q			1001 F					
				S&F EM	025C 125C	MS-883	50		0		
			Q		-055C	N.R.					
				LOPRESS	1.09T 025C	MS-883	50	1.20L 04	0		
			Q			1001 F					
				S&F EM	025C 125C	MS-883	50		0		
			Q		-055C	N.R.					
				LOPRESS	1.09T 025C	MS-883	50	2.40L 03	0		
			Q			1001 F					
				S&F EM	025C 125C	MS-883	50		0		
			Q		-055C	N.R.					
				LOPRESS	1.09T 025C	MS-883	50	1.20L 04	0		
			Q			1001 F					
				S&F EM	025C 125C	MS-883	50		0		
			Q		-055C	N.R.					
NATIONAL	DIP	C-1	07/76	THRESH	-050C 175C	MS-883X	15		0		
4007A	14	-55/125	Q		20CY	1011					
RCA	FPE	A-1	07/75	THRESH	-065C 150C	MS-883	55		0		
4007A	14	-55/125	Q		15CYC	1011 C					
RCA	FPE	A-1	06/75	VSRFQ	20WZ 2KHZ	MS-883	55		0		
4007A	14	-55/125	Q		20C	2004 C					
RCA	E-DIP	X	05/77	LOPRESS	1.09T 025C	MS-883	50	2.40L 03	0		
4007A	14	-40/50C	Q			1001 F					
				S&F EM	025C 125C	MS-883	50		0		
			Q		-055C	N.R.					
				LOPRESS	1.09T 025C	MS-883	50	1.20L 04	0		
			Q			1001 F					
				S&F EM	025C 125C	MS-883	50		0		
			Q		-055C	N.R.					
				LOPRESS	1.09T 025C	MS-883	50	2.40L 03	0		
			Q			1001 F					
				S&F EM	025C 125C	MS-883	50		0		
			Q		-055C	N.R.					
				LOPRESS	1.09T 025C	MS-883	50	1.20L 04	0		
			Q			1001 F					
				S&F EM	025C 125C	MS-883	50		0		
			Q		-055C	N.R.					
SOLID STATE SC	DIP	B-1	09/75	VIS 1XS		MS-883	15		0		
4007A	14	-55/125	V			2016					
SOLID STATE SC	DIP	B-1	09/75	VIS 1XS	85X	MS-883	3		0		
4007A	14	-55/125	V			2016					
			V	80X0874		MS-883	3		0		
			V			2011					
SOLID STATE SC	DIP	B-1	09/75	LEADFC	8 WZ 90PACS	MS-883	15		0		
4007A	14	-55/125	V		3 ARCS	2004 B					
			V	HEMNET		MS-883	15		0		
			V			1014					

INVERTER

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RSG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SOLID STATE SC 4007A	DIP : N 14	-55/125	09/75	MECHSHK V	1.5KG .5MSEC 6 AXES	MS-883 2002 B	15:		0:	
				VBVRFQ V	20HZ 2KHZ 20G	MS-883 2007 A	15:		0:	
				CNSTACC V	30KG 6 AXES 1 MIN E	MS-883 2001 E	15:		0:	
				HERMET V		MS-883 1014	15:		0:	
				VIS INS V	5X 10X	MS-883 N.R.	15:		0:	
				EM V		N.R.	15:		0:	
SOLID STATE SC 4007A	DIP : N 14	-55/125	09/75	MECHSHK V	1.5KG .5MSEC 6 AXES	MS-883 2002 B	15:		0:	
				VBVRFQ V	20HZ 2KHZ 20G	MS-883 2007 A	15:		0:	
				CNSTACC V	30KG 6 AXES 1 MI. E	MS-883 2001 E	15:		0:	
				HERMET V		MS-883 1014	15:		0:	
				VIS INS V	5X 10X	MS-883 N.R.	15:		0:	
				EM V		N.R.	15:		0:	
SOLID STATE SC 4007A	DIP : N 14	-55/125	09/75	SALTATH V	035C 25GMS MSQ	MS-883 1009 A	15:	3.60E 02	0:	
				VIS INS V	5X 10X	MS-883 N.R.	15:		0:	
SOLID STATE SC 4007A	DIP : N 14	-55/125	09/75	SALTATH V	035C 25GMS MSQ	MS-883 1009 A	15:	3.60E C2	0:	
				VIS INS V	5X 10X	MS-883 N.R.	15:		0:	

LATCH

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RSG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT 7475	DIP : B-1 16	0/70C	09/75	SALTATH V	035C 50GMS MSQ	MS-883 1009 A	62:		0:	
ITT 7475	DIP : B-1 16	0/70C	09/75	MECHSHK V	1.5KG .5MSEC 6 AXES	MS-883 2002 B	38:		0:	
				VBVRFQ V	100HZ 2KHZ 20G	MS-883 2007 A	38:		0:	
				CNSTACC V	30KG 6 AXES 1 MIN E	MS-883 2001 D	38:		0:	
				EM V		N.R.	38:		0:	
ITT 7475	DIP : B-1 16	0/70C	03/75	THRMSHK V	-055C 125C 15CYC	MS-883 1011 B	55:		0:	
				TEMPCYC V	-065C 150C 100CYC	MS-883 1010 C	55:		0:	
				NOIST V	-010C 065C 98ZRH	MS-883 1004	55:		0:	
				EM V		N.R.	55:		0:	
SIGNETICS 5475	DIP : B-1 16	-55/125	05/75	THRMSHK Q	-055C 125C 15CY	MM38510 1011 B	41:		0:	
				VBVRFQ Q	20HZ 2KHZ 20G	MM38510 2007 A	41:		0:	
				FINE LK Q	HE 5.E-8 60 MIN	MM38510 1014 A	41:		0:	
				GROSSLK Q	FLUOR 125C 7X	MM38510 1014 C	41:		0:	
				EM Q	025C	MM38510 N.R.	41:		0:	

LATCH				ENVIRONMENTAL				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	THP RNG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLO	SUMMARY	/#
SIGNETICS	FPK	B-1	03/75	THRM SHK	-055C 125C	MM38510	41:			0:	
5477	14	-55/125	Q		15CY	1011 B					
				VBVRFQ	20HZ 2KHZ	MM38510	41:			0:	
			Q		20G	2007 A					
				FINE LK	HE 5.E-8	MM38510	41:			0:	
			Q		60 MIN	1014 A					
				GROSSLK	FLUOR 125C	MM38510	41:			0:	
			Q		3X	1014 C					
				EM	025C	MM38510	41:			0:	
			Q			N.R.					

LATCH				ENVIRONMENTAL				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE ECL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	THP RNG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLO	SUMMARY	/#
FAIRCHILD	DIP	N	01/77	THRM SHK	-055C 125C	MM38510	76:			0:	
10130	16	N.R.	V		15CY	1011 B					
				TEMP CYC	-065C 150C	MM38510	76:			0:	
			V		10CY	1010 C					
				HERMET			76:			0:	
			V			N.R.					
FAIRCHILD	DIP	N	01/77	MECH SHK	1.5KG .5MSEC	MM38510	76:			0:	
10130	16	N.R.	V		6 AXES	2002 B					
				VBVRFQ	20HZ 2KHZ	MM38510	76:			0:	
			V		20G	2007 A					
				CNSTACC	30KG 6 AXES	MM38510	76:			0:	
			V		1 MIN E	2001 E					
				HERMET			76:			0:	
			V			N.R.					
FAIRCHILD	E-DIP	N	01/77	AUTOCLV	15PSIG121C		50:			0:	
10133	16	0/70C	V			N.R.					
				EM			50:			0:	
			V			N.R.					
FAIRCHILD	E-DIP	N	01/77	AUTOCLV	15PSIG121C		50:			0:	
10133	16	0/70C	V			N.R.					
				EM			50:			0:	
			V			N.R.					

LOGIC UNIT				ENVIRONMENTAL				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	THP RNG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLO	SUMMARY	/#
SIGNETICS	DIP	B-1	07/75	LEADFTG	150EG	MM38510	38:			1:	
54181	24	-55/125	Q		3 ARCS	2004 B					
				FINE LK	HE 5.E-8	MM38510	37:			0:	
			Q		60 MIN	1014 A					
				GROSSLK	FLUOR 125C	MM38510	37:			0:	
			V		3X	1014 C					
SIGNETICS	DIP	B-1	07/75	VIS INS	10X	MM38510	10:			0:	
54181	24	-55/125	Q		20X	2008					
				BONDSTR	1.5GMS38BDS	MM38510	10:			0:	
			Q			2011 D					
SIGNETICS	DIP	B-1	07/75	SOLDER	1260C 95Z	MM38510	3:			0:	
54181	24	-55/125	Q		5 SEC	2003					

LOGIC UNIT				ENVIRONMENTAL				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE LCL							
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RRG	TEST SRC	TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD	10181	DIP : N	01/77	THRM SH	-055C 125C	MM38510	25:	0:			
		24 :-55/125	V	TEMP CYC	15CY	1011 B	25:	0:			
			V	HERMET	-065C 150C	MM38510	25:	0:			
			V		10CY	1010 C	25:	0:			
			V			N.R.	25:	0:			
FAIRCHILD	10181	DIP : N	01/77	SOLDER	260C 95%	MM38510	15:	0:			
		24 :-55/125	V	LEADFTG	5 SEC	2003	15:	0:			
			V	HERMET	8 OZ 90DEGS	MM38510	15:	0:			
			V		3 ARCS	2004 B	15:	0:			
			V			N.R.	15:	0:			
FAIRCHILD	10161	DIP : N	01/77	TEMP CYC	-065C 150C	MM38510	25:	0:			
		24 :-55/125	V	CNST ACC	10CY	1010 C	25:	0:			
			V	HERMET	30KG 6 AXES	MM38510	25:	0:			
			V		1 MIN E	2001 E	25:	0:			
			V			N.R.	25:	0:			
FAIRCHILD	10181	DIP : N	01/77	MECH SHK	1.5KG .5MSEC	MM38510	25:	0:			
		24 :-55/125	V	VBRFQ	6 AXES	2002 B	25:	0:			
			V		20HZ 2KHZ	MM38510	25:	0:			
			V		20G	2007 A	25:	0:			
			V	CNST ACC	30KG 6 AXES	MM38510	25:	0:			
			V		1 MIN E	2001 E	25:	0:			
			V	HERMET		N.R.	25:	0:			
FAIRCHILD	10181	DIP : N	01/77	TEMP CYC	-065C 150C	MM38510	8:	0:			
		24 :-55/125	V	CNST ACC	10CY	1010 C	8:	0:			
			V	HERMET	30KG 6 AXES	MM38510	8:	0:			
			V		1 MIN E	2001 E	8:	0:			
			V			N.R.	8:	0:			

MULTIPLEXER				ENVIRONMENTAL				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE LOW POWER TTL							
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RRG	TEST SRC	TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	93L09	DIP : V	12/75	EM				260:		1: MFEF 679/1	
		16 :-55/125	U	X-RAY			N.R.	259:			
			U	EM			N.R.	259:			
			U				N.R.	259:			

MULTIPLEXER				ENVIRONMENTAL				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RRG	TEST SRC	TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ADV MICRO DEV	9309	FPK : B-2	01/75	BOND STA	1GMS 15BDS	MS-883	10:	0:			
		16 :-55/125	V			2011 D	10:	0:			
ADV MICRO DEV	9309	FPK : B-2	01/75	SOLDER	260C 95%	MS-883	15:	0:			
		16 :-55/125	V		5 SEC	2003	15:	0:			
ADV MICRO DEV	9309	FPK : B-2	02/75	LEADFTG	3 OZ 90DEGS	MS-883	34:	0:			
		16 :-55/125	V		3 ARCS	2004 B	34:	0:			
			V	FINE LK	1HE 5.E-8	MS-883	34:	0:			
			V		160 MIN	1014 A	34:	1:			MFEF 1878/1
			V	GROSS LK	FLUOR 125C	MS-883	34:	1:			
			V		13X	1014 C	34:	1:			

MULTIPLEXER

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY			BIPOLAR			OPERATIONAL TYPE			TTL		
MANUFACTURER	PART NO	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
		PINS	THP RRG	SKC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
ADV MICRO DEV	9322	DIP	B-2	02/75	VIS INS	10X	MS-883	22		0	
		16	-55/125	V		20X	2008 A				
ADV MICRO DEV	9322	DIP	B-2	02/75	BONDSTR	1GMS 11BDS	MS-883	11		0	
		16	-55/125	V			2011 B				
ADV MICRO DEV	9322	DIP	B-2	02/75	LEADFTG	8 OZ 90DEGS	MS-883	22		0	
		16	-55/125	V		3 ARCS	2004 B				
					FINE LK	HE 5.E-8	MS-883	22		0	
					V	60 MIN	1014 A				
					GROSSLK	FLUOR 125C	MS-883	22		0	
					V	3X	1014 C				
ADV MICRO DEV	9322	DIP	B-2	02/75	SOLDER	260C 95%	MS-883	22		0	
		16	-55/125	V		5 SEC	2003				
ADV MICRO DEV	9322	DIP	B-2	03/75	FINE LK	HE 5.E-8	MS-883	22		0	
		16	-55/125	V		60 MIN	1014 A				
					GROSSLK	FLUOR 125C	MS-883	22		0	
					V	3X	1014 C				
					THRMSHK	-055C 125C	MS-883	22		0	
					V	15CY	1011 B				
					TEMPCYC	-665C 150C	MS-883	22		0	
					V	10CY	1010 C				
					MOIST	-010C 065C	MS-883	22		0	
					V	98ZRH	1004				
					FINE LK	HE 5.E-8	MS-883	22		0	
					V	60 MIN	1014 A				
					GROSSLK	FLUOR 125C	MS-883	22		0	
					V	3X	1014 C				
ADV MICRO DEV	9322	DIP	B-2	02/75	FINE LK	HE 5.E-8	MS-883	22		0	
		16	-55/125	V		60 MIN	1014 A				
					GROSSLK	FLUOR 125C	MS-883	22		0	
					V	3X	1014 C				
					MECHSHK	1.5KG .5MSEC	MS-883	22		0	
					V	6 AXES	2002 B				
					VBRFQ	20HZ 2KHZ	MS-883	22		0	
					V	20G	2007 A				
					CNSTACC	20KG 6 AXES	MS-883	22		0	
					V	1 MIN E	2001 E				
					FINE LK	HE 5.E-8	MS-883	22		0	
					V	60 MIN	1014 A				
					GROSSLK	FLUOR 125C	MS-883	22		0	
					V	3X	1014 C				
ADV MICRO DEV	9322	DIP	B-2	02/75	SALTATM	035C 25CHS	MS-883	0		0	
		16	-55/125	V		MSQ	1009 A				
ITT	54151	FPK	B-1	09/75	SALTATM	035C 50CHS	MS-883	15		0	
		16	-55/125	V		MSQ	1009 A				
ITT	54151	FPK	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	15		0	
		16	-55/125	V		6 AXES	2002 B				
					VBRFQ	100HZ 2KHZ	MS-883	15		0	
					V	20G	2007 A				
					CNSTACC	20KG 6 AXES	MS-883	15		0	
					V	1 MIN E	2001 D				
					V	EM		15		0	
							N.R.				
ITT	54151	FPK	B-1	09/75	THRMSHK	-055C 125C	MS-883	15		0	
		16	-55/125	V		15CYC	1011 B				
					TEMPCYC	-065C 150C	MS-883	15		0	
					V	10CYC	1010 C				
					MOIST	-010C 065C	MS-883	15		0	
					V	98ZRH	1004				
					V	EM		15		0	
							N.R.				
ITT	54157	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	105		0	
		16	-55/125	V			2003				
ITT	54157	DIP	B-1	09/75	SALTATM	035C 30CHS	MS-883	22		0	
		16	-55/125	V		MSQ	1009 A				
ITT	54157	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	60		0	
		16	-55/125	V		6 AXES	2002 B				
					VBRFQ	100HZ 2KHZ	MS-883	60		0	
					V	20G	2007 A				
					CNSTACC	20KG 6 AXES	MS-883	60		0	
					V	1 MIN E	2001 D				
					V	EM		60		0	
							N.R.				

MULTIPLEXER

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	THP RRG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
ITT	54157	DIP :B-1	09/75	THRM SHK	-055C 125C	MS-883	60:		0:	
		16 :55/125	V	TEMP CYC	-065C 150C	1011 B	60:		0:	
			V	MOIST	-010C 065C	MS-883	60:		0:	
			V	EM	982RH	1010 C	60:		0:	
			V			1004	60:		0:	
			V			N.R.				
ITT	54157	DIP :B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	105:		0:	
		16 :55/125	V	FINE LK	HE 5-E-8	2004 B	105:		0:	
			V	GROSS LK	FLUOR 125C	MS-883	105:		0:	
			V		3X	1014 A				
			V			1014 C				
ITT	74150	E-DIP :N	09/75	AUTOCLV	15PSIG 100C	MS-883	258:		9:	
		24 :0/70C	V		1002RH	N.R.				
ITT	74150	E-DIP :N	09/75	TEMP CYC	-065C 150C	MS-883	104:		0:	
		24 :0/70C	V	EM		1010 C	104:		3:	
			V			N.R.				
ITT	74150	E-DIP :N	09/75	VIS INS		MS-883	31:		0:	
		24 :0/70C	V	BONDSTR		2008	31:		3:	
			V			MS-883				
			V			2011				
ITT	9309	DIP :B-1	09/75	SOLDER	260C 95Z	MS-883	10:		0:	
		16 :N.R.	V			2003				
ITT	9309	DIP :B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	75:		0:	
		16 :N.R.	V	FINE LK	HE 5-E-8	2004 B	75:		0:	
			V	GROSS LK	FLUOR 125C	MS-883	75:		0:	
			V		3X	1014 A				
			V			1014 C				
ITT	9312	DIP :B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	159:		0:	
		16 :N.R.	V	HERNET		2004 B	159:		7:	
			V			MS-883				
			V			1014				
ITT	9312	DIP :B-1	09/75	SOLDER	260C 95Z	MS-883	15:		0:	
		16 :N.R.	V			2003				
ITT	9312	DIP :B-1	09/75	SOLDER	260C 95Z	MS-883	15:		0:	
		16 :N.R.	V			2003				
ITT	9312	DIP :B-1	09/75	SALTATH	035C 50GMS	MS-883	30:		0:	
		16 :N.R.	V	MSQ		1009 A				
ITT	9312	DIP :B-1	09/75	MECH SHK	1.5KG .5MSEC	MS-883	16:		0:	
		16 :N.R.	V	6 AXES		2002 B	16:		0:	
			V	VIB VRFQ	100HZ 2KHZ	MS-883	16:		0:	
			V	20G		2007 A				
			V	CNSTACC	20KG 6 AXES	MS-883	16:		0:	
			V	1 MIN E		2001 D	16:		0:	
			V	EM		N.R.				
ITT	9312	DIP :B-1	09/75	THRM SHK	-055C 125C	MS-883	47:		0:	
		16 :N.R.	V	TEMP CYC	-065C 150C	1011 B	47:		0:	
			V	MOIST	-010C 065C	MS-883	47:		0:	
			V	EM	982RH	1010 C	47:		0:	
			V			1004	47:		0:	
			V			N.R.				
ITT	9312	DIP :B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	47:		0:	
		16 :N.R.	V	FINE LK	HE 5-E-8	2004 B	47:		0:	
			V	GROSS LK	FLUOR 125C	MS-883	47:		0:	
			V		3X	1014 A				
			V			1014 C				
ITT	9322	DIP :B-1	09/75	SOLDER	260C 95Z	MS-883	17:		0:	
		16 :N.R.	V			2003				

MULTIPLEXER				ENVIRONMENTAL				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE FL							
MANUFACTURER	PKG/	SCK CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TMP RNG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY	
ITT	DIP	8-1	09/75	LEADFTC	8 OZ	30 DEG	MS-883	72	0		
9322	16	N.R.		V	16 ARCS	2004 B					
				FINE LK	HE	5-E-8	MS-883	72	0		
				V	60 MIN	1014 A					
				CROSSLR	FLUOR 125C	MS-883	72		0		
				V	3X	1014 C					
SIGNETICS	DIP	8-1	04/75	THRM SHK	-055C 125C	MM38510	29		0		
54157	16	-55/125		Q	15CY	1011 B					
				VBRFQ	20HZ 2KHZ	MM38510	29		0		
				Q	20G	2007 A					
				FINE LK	HE	5-E-8	MM38510	29	C		
				Q	60 MIN	1014 A					
				CROSSLR	FLUOR 125C	MM38510	29		C		
				Q	3X	1014 C					
				EM	025C	MM38510	29		0		
				Q		N.R.					
SIGNETICS	DIP	8-1	05/75	THRM SHK	-055C 125C	MM38510	41		0		
9309	16	-55/125		Q	15CY	1011 B					
				VBRFQ	20HZ 2KHZ	MM38510	41		0		
				Q	20G	2007 A					
				FINE LK	HE	5-E-8	MM38510	41	0		
				Q	60 MIN	1014 A					
				CROSSLR	FLUOR 125C	MM38510	41		0		
				Q	3X	1014 C					
				EM	025C	MM38510	41		0		
				Q		N.R.					

MULTIPLEXER				ENVIRONMENTAL				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE ECL							
MANUFACTURER	PKG/	SCK CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TMP RNG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY	
FAIRCHILD	EPK	N	01/77	SOLDER	260C 95%	MM38510	21		0		
100164	24	-55/125	V	HERMET	5 SEC	2003			0		
			V			N.R.	21		0		
FAIRCHILD	DIP	N	01/77	MECHSHK	1.5KG 5MSEC	MM38510	38		0		
10132	16	N.R.	V	6 AXES		2002 B			0		
			V	20HZ 2KHZ		MM38510	38		0		
			V	20G		2007 A			0		
			V	CNSTACC	30KG 6 AXES	MM38510	38		0		
			V	1 MIN E		2001 E			0		
			V	HERMET		N.R.	38		0	INFEF-685/1	
FAIRCHILD	DIP	N	01/77	THRM SHK	-055C 125C	MM38510	30		0		
10164	16	-55/125	V	15CY		1011 B			0		
			V	TEMP CYC	-065C 150C	MM38510	30		0		
			V	10CY		1010 C			0		
			V	HERMET		N.R.	30		0		
FAIRCHILD	DIP	N	01/77	MECHSHK	1.5KG 5MSEC	MM38510	30		0		
10164	16	-55/125	V	6 AXES		2002 B			0		
			V	20HZ 2KHZ		MM38510	30		0		
			V	20G		2007 A			0		
			V	CNSTACC	30KG 6 AXES	MM38510	30		0		
			V	1 MIN E		2001 E			0		
			V	HERMET		N.R.	30		0		
FAIRCHILD	DIP	N	01/77	SOLDER	260C 95%	MM38510	15		0		
10164	16	-55/125	V	5 SEC		2003			0		
			V	LEADFTC	8 OZ 90DEGS	MM38510	15		0		
			V	3 ARCS		2004 B			0		
			V	HERMET		N.R.	15		0		
FAIRCHILD	DIP	N	01/77	MECHSHK	1.5KG 5MSEC	MM38510	23		0		
10164	16	-55/125	V	6 AXES		2002 B			0		
			V	20HZ 2KHZ		MM38510	23		0		
			V	20G		2007 A			0		
			V	CNSTACC	30KG 6 AXES	MM38510	23		0		
			V	1 MIN E		2001 E			0		
			V	HERMET		N.R.	23		0		

MULTIPLEXER

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE ECL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
FAIRCHILD 10164	DIP 16	N -55/125	01/77 V	THRM SHK 15CY	-055C 125C	MH38510	24		0	
			V	TEMP CYC 10CY	-065C 150C	MH38510	24		0	
			V	HERMET		1010 C	24			11 HFEF 68371
			V			N.R.				

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOAR

OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
ADV MICRO DEV 93L00	N.R. 16	N.R. N.R.	08/75 U	VIS INS FINE LK		N.R.	6205		0	
			U	GROSS LK		N.R.	6205		0	
			U	EM		N.R.	6205		55	
			U	EM		N.R.	6205		172	
			U	TEMP CYC		N.R.	6205		0	
			U	VIS INS		N.R.	6205		0	
NATIONAL 54L95	DIP 14	N -55/125	12/75 V	THRM SHK 15CY	000C 100C	MS-883	4		0	
			V	TEMP CYC 10CY	-065C 150C	1011 A	4		0	
			V	NOIST	-010C 065C	1010 C	4		0	
			V	98ZRH		1004	4		0	
			V	EM		N.R.	4		0	
NATIONAL 54L95	DIP 14	N -55/125	07/76 V	THRM SHK 15CY	000C 100C	MS-883	4		0	
			V	TEMP CYC 10CY	-065C 150C	1011 A	4		0	
			V	NOIST	-010C 065C	1010 C	4		0	
			V	98ZRH		1004	4		0	
			V	EM		N.R.	4		0	
NATIONAL 54L95	DIP 14	N -55/125	12/75 V	MECH SHK 50G	1.5KG 5MSEC	MS-883	4		0	
			V	VBVRFQ 20HZ	6 AXES	2002 B	4		0	
			V	50G	2007 B	MS-883	4		0	
			V	CNSTACC 1 MIN E	30KG 6 AXES	MS-883	4		0	
			V	EM		2001 E	4		0	
			V			N.R.			0	
NATIONAL 54L95	DIP 14	N -55/125	07/76 V	MECH SHK 50G	1.5KG 5MSEC	MS-883	4		0	
			V	VBVRFQ 20HZ	6 AXES	2002 B	4		0	
			V	50G	2007 B	MS-883	4		0	
			V	CNSTACC 1 MIN E	30KG 6 AXES	MS-883	4		0	
			V	EM		2001 E	4		0	
			V			N.R.			0	
NATIONAL 74L164	N.R. 14	N.R. 07/70C	08/75 U	VIS INS FINE LK		N.R.	3400		0	
			U	GROSS LK		N.R.	3400		0	
			U	EM		N.R.	3400		0	
			U	EM		N.R.	3400		0	
			U	TEMP CYC		N.R.	3400		0	
			U	VIS INS		N.R.	3400		0	
			U			N.R.			0	

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
T.I. 54L164	N.R. 14	N.R. -55/125	08/75	VIS INS U		N.R.	89:		0:	
				FINE LK U		N.R.	89:		0:	
				GROSSLK U		N.R.	89:		0:	
				EM U		N.R.	89:		0:	
				EM U		N.R.	89:		2:	
				VIS INS U		N.R.	89:		0:	
						N.R.				
T.I. 74L95A	N.R. 14	N.R. 0/70C	08/75	VIS INS U		N.R.	1200:		0:	
				FINE LK U		N.R.	1200:		0:	
				GROSSLK U		N.R.	1200:		0:	
				EM U		N.R.	1200:		6:	
				EM U		N.R.	1200:		0:	
				TEMPCYC U		N.R.	1200:		0:	
				VIS INS U		N.R.	1200:		0:	
						N.R.				

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
ADV MICRO DEV 9300	N.R. 16	N.R.	08/75	VIS INS U		N.R.	13265:		0:	
				FINE LK U		N.R.	13265:		0:	
				GROSSLK U		N.R.	13265:		0:	
				EM U		N.R.	13265:		55:	
				EM U		N.R.	13265:		172:	
				TEMPCYC U		N.R.	13265:		0:	
				VIS INS U		N.R.	13265:		0:	
						N.R.				
FAIRCHILD 9300	N.R. 16	N.R.	08/75	VIS INS U		N.R.	324:		0:	
				FINE LK U		N.R.	324:		12:MFEF 1881/12	
				GROSSLF U		N.R.	324:		19:MFEF 1882/19	
				EM U		N.R.	324:		7:	
				EM U		N.R.	324:		16:	
				TEMPCYC U		N.R.	324:		0:	
				VIS INS U		N.R.	324:		0:	
						N.R.				
ITT 54164	FPK :A-1 14	-55/125	09/75	SOLDER V	260C 95%	MS-883 2003	64:		0:	
ITT 54164	FPK :A-1 14	-55/125	09/75	VIS INS V		MS-883 2008	32:		0:	
				BONDSTR V		MS-883 2011	32:		0:	
ITT 54164	FPK :A-1 14	-55/125	09/75	LEADFTG V	8 OZ 90DEG 6 ARCS	MS-883 2004	22:		0:	
				FINE LK V	HE S-E-8 60 MIN	MS-883 1014 A	22:		0:	
				GROSSLK V	FLUOR 125C 3%	MS-883 1014 C	22:		0:	

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY			BIPOLAR			OPERATIONAL TYPE			TTL								
MANUFACTURER	PART NO	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	MO.	DEVICE	MO.	FAILURE	TEST	HOURS	FLD	SUMMARY	II	
		PINS	TEMP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOUS	FLD							
ITT	5494	FPK :B-1	:09/75	MECHSHK	1.5KG .5MSEC	MS-883	15:			0:							
		16	-55/125	V	:6 AXES	2002 B	15:			0:							
				V	:100HZ 2KHZ	MS-883	15:			0:							
				V	:20C	2007 A	15:			0:							
				V	:CNSTACC	20KG 6 AXES	MS-883	15:		0:							
				V	:1 MIN E	2001 L	15:			0:							
				V	:EM		15:			0:							
				V		N.R.											
ITT	5494	FPK :B-1	:09/75	THRM SHK	-055C 125C	MS-883	15:			0:							
		16	-55/125	V	:15CYC	1011 B	15:			0:							
				V	:TEMP CYC	-065C 150C	MS-883	15:		0:							
				V	:10CYC	1010 C	15:			0:							
				V	:MOIST	-010C 065C	MS-883	15:		0:							
				V	:982RH	1004	15:			0:							
				V	:EM		15:			0:							
				V		N.R.											
ITT	9300	E-IP :N	:09/75	AUTOCLV	15PSIG 100C	MS-883	104:			1:							
		16	N.R.	V	:1002RH	N.R.											
ITT	9300	E-DIP :N	:09/75	TEMP CYC	-065C 150C	MS-883	52:			0:							
		16	N.R.	V	:15CYC	1010 C	52:			0:							
				V	:EM		52:			0:							
				V		N.R.											
ITT	9300	DIP :B-1	:09/75	SOLDER	260C 95Z	MS-883	15:			0:							
		16	N.R.	V		2003											
ITT	9300	E-DIP :N	:09/75	SALTATH	035C 50CMS	MS-883	15:			0:							
		16	N.R.	V	:M-Q	1009 A											
ITT	9300	DIP :B-1	:09/75	SALTATH	035C 50CMS	MS-883	38:			0:							
		16	N.R.	V	:MSQ	1009 A											
ITT	9300	DIP :B-1	:09/75	MECHSHK	1.5KG .5MSEC	MS-883	12:			0:							
		16	N.R.	V	:6 AXES	2002 B	12:			0:							
				V	:100HZ 2KHZ	MS-883	12:			0:							
				V	:20C	2007 A	12:			0:							
				V	:CNSTACC	20KG 6 AXES	MS-883	12:		0:							
				V	:1 MIN E	2001 D	12:			0:							
				V	:EM		12:			0:							
				V		N.R.											
ITT	9300	E-DIP :N	:09/75	THRM SHK	-055C 125C	MS-883	50:			0:							
		16	N.R.	V	:15CYC	1011 B	50:			0:							
				V	:TEMP CYC	-065C 150C	MS-883	50:		0:							
				V	:10CYC	1010 C	50:			0:							
				V	:MOIST	-010C 065C	MS-883	50:		0:							
				V	:982RH	1004	50:			0:							
				V	:EM		50:			0:							
				V		N.R.											
ITT	9300	DIP :B-1	:09/75	THRM SHK	-055C 125C	MS-883	34:			0:							
		16	N.R.	V	:15CYC	1011 B	34:			0:							
				V	:TEMP CYC	-065C 150C	MS-883	34:		0:							
				V	:10CYC	1010 C	34:			0:							
				V	:MOIST	-010C 065C	MS-883	34:		0:							
				V	:982RH	1004	34:			0:							
				V	:EM		34:			0:							
				V		N.R.											
ITT	9300	E-DIP :N	:09/75	MECHSHK	1.5KG .5MSEC	MS-883	25:			0:							
		16	N.R.	V	:6 AXES	2002 B	25:			0:							
				V	:100HZ 2KHZ	MS-883	25:			0:							
				V	:20C	2007 A	25:			0:							
				V	:CNSTACC	20KG 6 AXES	MS-883	25:		0:							
				V	:1 MIN E	2001 D	25:			0:							
				V	:EM		25:			0:							
				V		N.R.											
ITT	9300	DIP :B-1	:09/75	LEADFTG	8 OZ 90DEG	MS-883	64:			0:							
		16	N.R.	V	:6 ARCS	2004 B	64:			0:							
				V	:FINE LK	5-E-8	MS-883	64:		0:							
				V	:60 MIN	1014 A	64:			0:							
				V	:FLUOR 125C	MS-883	64:			0:							
				V	:3X	1014 C											

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY (1)
NATIONAL 5495	N-R 14	N-R. -55/125	08/75 U	VIS INS		N-R.	95:		0:	
			U	FINE LK		N-R.	95:		2:	MFEF-1883/2
			U	CROSSLK		N-R.	95:		0:	
			U	EM		N-R.	95:		0:	
			U	EM		N-R.	95:		0:	
			U	TEMPCYC		N-R.	95:		0:	
			U	VIS INS		N-R.	95:		0:	
			U			N-R.				
SIGNETICS 8203	N-R 24	N-R. N-R.	08/75 U	VIS INS		N-R.	71:		0:	
			U	FINE LK		N-R.	71:		0:	
			U	CROSSLK		N-R.	71:		0:	
			U	EM		N-R.	71:		0:	
			U	EM		N-R.	71:		18:	
			U	TEMPCYC		N-R.	71:		0:	
			U	VIS INS		N-R.	71:		0:	
			U			N-R.				
SIGNETICS 8273	E-DIP 16	N 0/70C	12/75 U	X-RAY		N-R.	6925:		0:	
			U	EM		N-R.	6925:		1:	MFEF-680/1
			U			N-R.				
T.I. 54164	N-R 14	N-R. -55/125	08/75 U	VIS INS		N-R.	554:		0:	
			U	FINE LK		N-R.	554:		11:	MFEF-1884/11
			U	CROSSLK		N-R.	554:		2:	MFEF-1886/2
			U	EM		N-R.	554:		0:	
			U	EM		N-R.	554:		12:	
			U	TEMPCYC		N-R.	554:		0:	
			U	VIS INS		N-R.	554:		0:	
			U			N-R.				
T.I. 54165	N-R 16	N-R. -55/125	08/75 U	VIS INS		N-R.	118:		0:	
			U	FINE LK		N-R.	118:		0:	
			U	CROSSLK		N-R.	118:		0:	
			U	EM		N-R.	118:		0:	
			U	EM		N-R.	118:		0:	
			U	TEMPCYC		N-R.	118:		0:	
			U	VIS INS		N-R.	118:		0:	
			U			N-R.				
T.I. 54195	N-R 16	N-R. -55/125	08/75 U	VIS INS		N-R.	291:		0:	
			U	FINE LK		N-R.	291:		0:	
			U	CROSSLK		N-R.	291:		0:	
			U	EM		N-R.	291:		3:	
			U	EM		N-R.	291:		16:	
			U	TEMPCYC		N-R.	291:		0:	
			U	VIS INS		N-R.	291:		0:	
			U			N-R.				

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCH-CL/ TMP-RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	78
T.I. 5491A	N.R. 14	N.R. -55/125	08/75	VIS-INS		N.R.	8		0		
			U	FINE LK		N.R.	8		0		
			U	GROSS LK		N.R.	8		0		
			U	EN		N.R.	8		0		
			U	EN		N.R.	8		0		
			U	TEMP CYC		N.R.	8		0		
			U	VIS-INS		N.R.	8		0		
			U			N.R.					
T.I. 5495A	N.R. 14	N.R. -55/125	08/75	VIS-INS		N.R.	499		0		
			U	FINE LK		N.R.	499		17	INTERF 1885/17	
			U	GROSS LK		N.R.	499		8	INTERF 1887/8	
			U	EN		N.R.	499		15		
			U	EN		N.R.	499		55		
			U	TEMP CYC		N.R.	499		0		
			U	VIS-INS		N.R.	499		1		
			U	X-RAY		N.R.	499		9		
			U			N.R.					
T.I. 5496	N.R. 16	N.R. -55/125	08/75	VIS-INS		N.R.	51		9		
			U	FINE LK		N.R.	51		0		
			U	GROSS LK		N.R.	51		11	INTERF 1888/11	
			U	LA		N.R.	51		0		
			U	EN		N.R.	51		0		
			U	TEMP CYC		N.R.	51		0		
			U	VIS-INS		N.R.	51		0		
			U			N.R.					
T.I. 74164	N.R. 14	N.R. 0/70C	08/75	VIS-INS		N.R.	3663		0		
			U	FINE LK		N.R.	3663		0		
			U	GROSS LK		N.R.	3663		0		
			U	EN		N.R.	3663		5		
			U	EN		N.R.	3663		124		
			U	TEMP CYC		N.R.	3663		0		
			U	VIS-INS		N.R.	3663		0		
			U			N.R.					
T.I. 7495	E-DIP 14	N.R. 0/70C	08/75	VIS-INS		N.R.	264		0		
			U	EN		N.R.	264		0		
			U	EN		N.R.	264		1		
			U	TEMP CYC		N.R.	264		0		
			U	VIS-INS		N.R.	264		0		
			U			N.R.					

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ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY: BIPOLAR

OPERATIONAL TYPE: TTL

MANUFACTURER PART NO	PKG/ PINS	SCRN CL/ TMP RHC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/1
T.I. 7495A	N.R. 14	N.R. 0770C	08/75	VIS-INS	U	N.R.	1479		1		
				FINE-LK	U	N.R.	1479		0		
				CROSSLK	U	N.R.	1479		0		
				EM	U	N.R.	1479		16		
				EM	U	N.R.	1479		5		
				TEMPCYC	U	N.R.	1479		0		
				VIS-INS	U	N.R.	1479		0		
VARIOUS 74165	N.R. 16	N.R. 0770C	08/75	VIS-INS	U	N.R.	3148		0		
				FINE-LK	U	N.R.	3148		0		
				CROSSLK	U	N.R.	3148		0		
				EM	U	N.R.	3148		5		
				EM	U	N.R.	3148		6		
				TEMPCYC	U	N.R.	3148		0		
				VIS-INS	U	N.R.	3148		0		

SHIFT REGISTER

ENVIRONMENTAL

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY: MOS

OPERATIONAL TYPE: CMOS

MANUFACTURER PART NO	PKG/ PINS	SCRN CL/ TMP RHC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/1
RCA 4014	DIP 16	A-1 -55/125	11/75	TERMSHK	-055C 125C	MM38510	58		0		
				15CY	15CY	1011 (B)	58		1		
				VBRFQ	20HZ 2KHZ	MM38510	58		0		
				20C	20C	2007 (A)	58		0		
				VIS-INS	U	N.R.	58		0		
RCA 4031A	DIP 16	B-1 -55/125	05/76	TEMPCYC	-065C 130C	MM38510	38		0		
				10CY	10CY	1010 (C)	38		0		
				CNSTACC	30KC 2AXES	MM38510	30		0		
				1 MIN	1 MIN	2001 (E)	38		0		
				FINE-LK	5-E-8	1014 (A)	38		0		
				60 MIN	60 MIN	1014 (C)	38		0		
				CROSSLK	FLUOR 125C	MM38510	38		0		
				3X	3X	1014 (C)	38		0		
				VIS-INS	U	N.R.	38		0		
				S&D-EM	-055C 025C	MM38510	38		0		
				125C	125C	N.R.					

COUNTER

BOARD LEVEL ENV.

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SEC	TEST TYPE	STRESS LEVEL	SPEC. REF	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
VARIOUS 54177	DIP-14	B-1 -55/125	03/75	VIB-FTG	30HZ 2-2G		1080		0	
			Q	SDF-EN	025C -054C	N.R.	1080		0	
			Q	HERMET	100C	N.R.	1079		0	
			Q	SDF-EN	025C -054C	N.R.	1079		0	
			Q	THRESHK	100C -065C 160C	N.R.	1079		0	
			Q	SDF-EN	025C	N.R.	1079		0	
			Q	VIB-FTG	30HZ 2-2G	N.R.	1079		0	
			Q	SDF-EN	025C	N.R.	1079		0	
			Q	HERMET		N.R.	1079		0	
			Q	SDF-EN	-054C 100C	N.R.	1079		0	
			Q		025C	N.R.			0	
VARIOUS 54121	DIP-14	B-10RJB -55/125	03/75	VIB-FTG	30HZ 2-2G		360		0	
			Q	SDF-EN	025C -054C	N.R.	360		0	
			Q	HERMET	100C	N.R.	360		0	
			Q	SDF-EN	025C -054C	N.R.	360		0	
			Q	THRESHK	100C -065C 160C	N.R.	359		0	
			Q	SDF-EN	025C	N.R.	359		0	
			Q	VIB-FTG	30HZ 2-2G	N.R.	359		0	
			Q	SDF-EN	025C	N.R.	359		0	
			Q	HERMET		N.R.	359		0	
			Q	SDF-EN	-054C 100C	N.R.	359		0	
			Q		025C	N.R.			0	
VARIOUS 5400	DIP-14	B-10RJB -55/125	03/75	VIB-FTG	30HZ 2-2G		360		0	
			Q	SDF-EN	025C -054C	N.R.	360		0	
			Q	HERMET	100C	N.R.	360		0	
			Q	SDF-EN	025C -054C	N.R.	360		0	
			Q	THRESHK	100C -065C 160C	N.R.	360		0	
			Q	SDF-EN	025C	N.R.	360		0	
			Q	VIB-FTG	30HZ 2-2G	N.R.	360		0	
			Q	SDF-EN	025C	N.R.	360		0	
			Q	HERMET		N.R.	360		0	
			Q	SDF-EN	-054C 100C	N.R.	360		0	
			Q		025C	N.R.			0	
VARIOUS 5402	DIP-14	B-10RJB -55/125	03/75	VIB-FTG	30HZ 2-2G		360		0	
			Q	SDF-EN	025C -054C	N.R.	360		0	
			Q	HERMET	100C	N.R.	360		0	
			Q	SDF-EN	025C -054C	N.R.	360		0	
			Q	THRESHK	100C -065C 160C	N.R.	360		0	
			Q	SDF-EN	025C	N.R.	360		0	
			Q	VIB-FTG	30HZ 2-2G	N.R.	360		0	
			Q	SDF-EN	025C	N.R.	360		0	
			Q	HERMET		N.R.	360		0	
			Q	SDF-EN	-054C 100C	N.R.	360		0	
			Q		025C	N.R.			0	

MULTIPLEXER

BOARD LEVEL ENV.

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I. 54153	DIP 16	B-1 -55/125	03/75	VIB FTG Q	30HZ 2.2G 3 AXES	N.R.	360		0	
				SDF EM Q	025C -054C 100C	N.R.	360		0	
				HERMET Q		N.R.	360		0	
				SDF EM Q	025C -054C 100C	N.R.	360		0	
				THRMSHK Q	-065C 160C	N.R.	360		0	
				SDF EM Q	025C	N.R.	360		0	
				VIB FTG Q	30HZ 2.2G 3 AXES	N.R.	360		0	
				SDF EM Q	025C	N.R.	360		0	
				HERMET Q		N.R.	360		0	
				SDF EM Q	-054C 100C 025C	N.R.	360		0	
VARIOUS 54151	DIP 16	B-1 -55/125	03/75	VIB FTG Q	30HZ 2.2G 3 AXES	N.R.	360		0	
				SDF EM Q	025C -054C 100C	N.R.	360		0	
				HERMET Q		N.R.	360		0	
				SDF EM Q	025C -054C 100C	N.R.	360		0	
				THRMSHK Q	-065C 160C	N.R.	360		0	
				SDF EM Q	025C	N.R.	360		0	
				VIB FTG Q	30HZ 2.2G 3 AXES	N.R.	360		0	
				SDF EM Q	025C	N.R.	360		0	
				HERMET Q		N.R.	360		0	
				SDF EM Q	-054C 100C 025C	N.R.	360		0	
VARIOUS 5496	DIP 16	B-10RJB -55/125	03/75	VIB FTG Q	30HZ 2.2G 3 AXES	N.R.	360		0	
				SDF EM Q	025C -054C 100C	N.R.	360		1	
				HERMET Q		N.R.	359		0	
				SDF EM Q	025C -054C 100C	N.R.	359		1	
				THRMSHK Q	-065C 160C	N.R.	358		0	
				SDF EM Q	025C	N.R.	358		0	
				VIB FTG Q	30HZ 2.2G 3 AXES	N.R.	358		0	
				SDF EM Q	025C	N.R.	358		0	
				HERMET Q		N.R.	358		0	
				SDF EM Q	-054C 100C 025C	N.R.	358		0	

RELIABILITY ANALYSIS CENTER

OPERATIONAL TYPE TTL

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DECODER

EQUIPMENT LEVEL ENV.

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PIHS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	1/
VARIOUS 93101	FPK B-1 16	B-1 -55/125	02/75 Q	MECHSHK FNCT LA	40G 8 MSEC 6 AXES	MS-810B 516	5:		0:		
			Q			N.R.	5:		0:		
VARIOUS 93101	FPK B-1 16	B-1 -55/125	04/75 Q	VIB RDM FNCT EM	50HZ 2KHZ 3G	MS-810B N.R.	5:		0:		
			Q			N.R.	5:		0:		
			Q	TEMPCYC FNCT EM	-010C 050C 1CY	N.R.	5:		0:		
			Q			N.R.	5:		0:		
			Q	TEMPCYC FNCT EM	-010C 050C 1CY	N.R.	5:		0:		
			Q			N.R.	5:		0:		
			Q	TEMPCYC FNCT EM	-010C 050C 1CY	N.R.	5:		0:		
			Q			N.R.	5:		0:		
			Q	TEMPCYC FNCT EM	-010C 050C 1CY	N.R.	5:		0:		
			Q			N.R.	5:		0:		
			Q	TEMPCYC FNCT EM	-010C 050C 1CY	N.R.	5:		0:		
			Q			N.R.	5:		0:		
			Q	TEMPCYC FNCT EM	-010C 050C 1CY	N.R.	5:		0:		
			Q			N.R.	5:		0:		
			Q	TEMPCYC FNCT EM	-010C 050C 1CY	N.R.	5:		0:		
			Q			N.R.	5:		0:		
			Q	TEMPCYC FNCT EM	-010C 050C 1CY	N.R.	5:		0:		
			Q			N.R.	5:		0:		

GATE

EQUIPMENT LEVEL ENV.

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE LOW POWER TTL							
MANUFACTURER PART NO	PKG/ PIHS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	1/
NATIONAL 54L00	FPK B-1 14	B-1 -55/125	03/75 Q	THERVAC FNCT EM	-035C 060C 12CY	N.R.	8:		0:		
			Q			N.R.	8:		0:		
NATIONAL 54L00	FPK B-1 14	B-1 -55/125	02/75 Q	ACUS NO FNCT EM	25HZ 40KHZ 147.5DB 8MIN	MS-810B 515	8:		0:		
			Q			N.R.	8:		0:		
NATIONAL 54L00	FPK B-1 14	B-1 -55/125	02/75 Q	VIB RDM VIB RDM VIB RDM VIB RDM FNCT EM	5HZ 17HZ 3G 17HZ 74HZ 7G 74HZ 500HZ 10G 500HZ 3KHZ 7.5G	N.R. N.R. N.R. N.R. N.R.	8: 8: 8: 8: 8:		0: 0: 0: 0: 0:		
			Q			N.R.	8:		0:		
NATIONAL 54L00	FPK B-1 14	B-1 -55/125	02/75 Q	MECHSHK FNCT EM	1KG 20USEC 3 AXES	N.R.	8:		0:		
			Q			N.R.	8:		0:		
NATIONAL 54L00	FPK B-1 14	B-1 -55/125	02/75 Q	VIB RDM FNCT EM	14HZ 2KHZ	N.R.	8:	1.00E 01	0:		
			Q			N.R.	8:		0:		
			Q			N.R.	8:		0:		
NATIONAL 54L00	FPK B-1 14	B-1 -55/125	02/75 Q	MECHSHK FNCT EM	40G 8 MSEC 6 AXES	MS-810B 516	8:		0:		
			Q			N.R.	8:		0:		

GATE

EQUIPMENT LEVEL ENV.

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ Tm' RAG	DATE/ SKC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL 54L00	FPK :B-1 14	:55/125	:04/75	:VIB RDM :FNCT EM	:50HZ 2KHZ :3G	:N.R.	:5:	:0:		
			:Q	:TEMPCYC	:010C 050C	:N.R.	:8:	:0:		
			:Q	:FNCT EM	:1CY	:N.R.	:8:	:0:		
			:Q	:TEMPCYC	:010C 050C	:N.R.	:8:	:0:		
			:Q	:FNCT EM	:56CY	:N.R.	:8:	:0:		
			:Q	:VIB RDM	:50HZ 2KHZ	:N.R.	:8:	:0:		
			:Q	:FNCT EM	:3G	:N.R.	:8:	:0:		
			:Q	:TEMPCYC	:010C 050C	:N.R.	:8:	:0:		
			:Q	:FNCT EM	:1CY	:N.R.	:8:	:0:		
			:Q	:TEMPCYC	:010C 050C	:N.R.	:8:	:0:		
			:Q	:FNCT EM	:56CY	:N.R.	:8:	:0:		
			:Q	:VIB RDM	:50HZ 2KHZ	:N.R.	:8:	:0:		
			:Q	:FNCT EM	:3G	:N.R.	:8:	:0:		
			:Q			:N.R.	:8:	:0:		

GATE

EQUIPMENT LEVEL ENV.

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RAG	DATE/ SKC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL 5410	FPK :B-1 14	:55/125	:03/75	:THERVAC :FNCT EM	:035C 060C :12CY	:N.R.	:2:	:0:		
			:Q			:N.R.	:2:	:0:		
NATIONAL 5410	FPK :B-1 14	:55/125	:02/75	:ACUS NO :FNCT EM	:25HZ 40KHZ :147.5DB 8MIN	:MS-810B :515	:2:	:0:		
			:Q			:N.R.	:2:	:0:		
NATIONAL 5410	FPK :B-1 14	:55/125	:02/75	:VIB RDM :VIB RDM :VIB RDM :VIB RDM :FNCT EM	:5HZ 17HZ :3G :7G :74HZ 500HZ :10C :500HZ 3KHZ :7.5C	:N.R. :N.R. :N.R. :N.R. :N.R.	:2: :2: :2: :2: :2:	:0: :0: :0: :0: :0:		
NATIONAL 5410	FPK :B-1 14	:55/125	:02/75	:MECHSHK :FNCT EM	:1KG 20USEC :3 AXES	:N.R.	:2:	:0:		
			:Q			:N.R.	:2:	:0:		
NATIONAL 5410	FPK :B-1 14	:55/125	:02/75	:VIB RDM :FNCT EM	:14HZ 2KHZ	:N.R.	:2:	3.00E 00	:0:	
			:Q			:N.R.	:2:	:0:		
NATIONAL 5410	FPK :B-1 14	:55/125	:02/75	:MECHSHK :FNCT EM	:40G 8 MSEC :6 AXES	:MS-810B :516	:2:	:0:		
			:Q			:N.R.	:2:	:0:		

GATE

EQUIPMENT LEVEL ENV.

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE ATL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP R4G	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL 5410	FPK :B-1 14	:B-1 :-55/125	:04/75	:VIB RDM :FNCT EM	:50HZ 2KHZ :3G	:N.R.	:2:	:0:		
				:Q		:N.R.	:2:	:0:		
				:Q	:TEMPCYC :010C 050C	:N.R.	:2:	:0:		
				:Q	:1CY	:N.R.	:2:	:0:		
				:Q	:FNCT EM	:N.R.	:2:	:0:		
				:Q	:TEMPCYC :010C 050C	:N.R.	:2:	:0:		
				:Q	:56CY	:N.R.	:2:	:0:		
				:Q	:VIB RDM :50HZ 2KHZ	:N.R.	:2:	:0:		
				:Q	:3G	:N.R.	:2:	:0:		
				:Q	:FNCT EM	:N.R.	:2:	:0:		
				:Q	:TEMPCYC :010C 050C	:N.R.	:2:	:0:		
				:Q	:1CY	:N.R.	:2:	:0:		
				:Q	:FNCT EM	:N.R.	:2:	:0:		
				:Q	:TEMPCYC :010C 050C	:N.R.	:2:	:0:		
				:Q	:56CY	:N.R.	:2:	:0:		
				:Q	:VIB RDM :50HZ 2KHZ	:N.R.	:2:	:0:		
				:Q	:3G	:N.R.	:2:	:0:		
				:Q	:FNCT EM	:N.R.	:2:	:0:		
VARIOUS 5400	DIP :JB 14	:JB :-55/125	:02/75	:VIB RDM	:REMARK	:N.R.	:40:	:0:		
				:Q						
VARIOUS 5400	DIP :JB 14	:JB :-55/125	:02/75	:MECHSHK	:50G 11MSEC	:N.R.	:40:	:0:		
				:Q	:6 AXES					
VARIOUS 5400	DIP :JB 14	:JB :-55/125	:02/75	:CNSTACC	:50G 6 AXES	:N.R.	:40:	:0:		
				:Q	:1 MIN E					
VARIOUS 5402	DIP :JB 14	:JB :-55/125	:02/75	:VIB RDM	:REMARK	:N.R.	:32:	:0:		
				:Q						
VARIOUS 5402	DIP :JB 14	:JB :-55/125	:02/75	:MECHSHK	:50G 11MSEC	:N.R.	:32:	:0:		
				:Q	:6 AXES					
VARIOUS 5402	DIP :JB 14	:JB :-55/125	:02/75	:CNSTACC	:50G 6 AXES	:N.R.	:32:	:0:		
				:Q	:1 MIN E					
VARIOUS 5425	DIP :JB 14	:JB :-55/125	:02/75	:VIB RDM	:REMARK	:N.R.	:24:	:0:		
				:Q						
VARIOUS 5425	DIP :JB 14	:JB :-55/125	:02/75	:MECHSHK	:50G 11MSEC	:N.R.	:24:	:0:		
				:Q	:5 AXES					
VARIOUS 5425	DIP :JB 14	:JB :-55/125	:02/75	:CNSTACC	:50G 6 AXES	:N.R.	:24:	:0:		
				:Q	:1 MIN E					
NATIONAL 5404	FPK :B-1 14	:B-1 :-55/125	:03/75	:THERVAC	:035C 060C	:N.R.	:2:	:0:		
				:Q	:12CY					
				:Q	:FNCT EM	:N.R.	:2:	:0:		
NATIONAL 5404	FPK :B-1 14	:B-1 :-55/125	:02/75	:ACUS NO	:25HZ 40KHZ	:MS-810B	:2:	:0:		
				:Q	:147.5DB 8MIN	:515				
				:Q	:FNCT EM	:N.R.	:2:	:0:		
NATIONAL 5404	FPK :B-1 14	:B-1 :-55/125	:02/75	:VIB RDM	:50HZ 17HZ	:N.R.	:2:	:0:		
				:Q	:3G					
				:Q	:VIB RDM :17HZ 74HZ	:N.R.	:2:	:0:		
				:Q	:7G					
				:Q	:VIB RDM :74HZ 500HZ	:N.R.	:2:	:0:		
				:Q	:10C					
				:Q	:VIB RDM :500HZ 3KHZ	:N.R.	:2:	:0:		
				:Q	:7.5G					
				:Q	:FNCT EM	:N.R.	:2:	:0:		
NATIONAL 5404	FPK :B-1 14	:B-1 :-55/125	:02/75	:MECHSHK	:1KG 20USEC	:N.R.	:2:	:0:		
				:Q	:3 AXES					
				:Q	:FNCT EM	:N.R.	:2:	:0:		
NATIONAL 5404	FPK :B-1 14	:B-1 :-55/125	:02/75	:VIB RDM	:14HZ 74HZ	:N.R.	:2:	:0:		
				:Q						
				:Q	:FNCT EM	:N.R.	:2:	:0:		
				:Q						

RELIABILITY ANALYSIS CENTER

OPERATIONAL TYPE TTL

MANUFACTURER	PKG/	SCK CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TMP RRG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
NATIONAL	FPK : B-1	: 02/75	: MECH	: 40G	3 MSEC	: MS-610B	: 2:		: 0:	
5404	14 : -55/125	: Q	: 6 AXES	: 516						
		: Q	: FNCT EM				: 2:		: 0:	
		: Q				: N.R.				
NATIONAL	FPK : B 1	: 04/ 5	: VIB RDM	: 50HZ	2KHZ		: 2:		: 0:	
5404	14 : - 5/125	: Q	: 3G			: N.R.				
		: Q	: FNCT EM				: 2:		: 0:	
		: Q	: TEMPCYC	: -010C	050C		: 2:		: 0:	
		: Q	: 1CY			: N.R.				
		: Q	: FNCT EM				: 2:		: 0:	
		: Q	: TEMPCYC	: -010C	050C		: 2:		: 0:	
		: Q	: 56CY			: N.R.				
		: Q	: VIB RDM	: 50HZ	2KHZ		: 2:		: 0:	
		: Q	: 3G			: N.R.				
		: Q	: FNCT EM				: 2:		: 0:	
		: Q	: TEMPCYC	: -010C	050C		: 2:		: 0:	
		: Q	: 1CY			: N.R.				
		: Q	: FNCT EM				: 2:		: 0:	
		: Q	: TEMPCYC	: -010C	050C		: 2:		: 0:	
		: Q	: 56CY			: N.R.				
		: Q	: VIB RDM	: 50HZ	2KHZ		: 2:		: 0:	
		: Q	: 3G			: N.R.				
		: Q	: FNCT EM				: 2:		: 0:	
		: Q				: N.R.				

ADDER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RRG	TEST SRC	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICES HOURS	NO. FLD	FAILURE SUMMARY	1/
T-1	74H183	E-DIP	N.R.	01/75	TEMPCYC	-055C 125C	185		0		
		14	0/70C	I	10CY	N.R.					
				I	REVBias	100C	185	4.44E 03	0		
				I	EM		185		3		
				I		N.R.					

ADDER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RRG	TEST SRC	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICES HOURS	NO. FLD	FAILURE SUMMARY	1/
T-1	74283	E-TIP	N.R.	01/75	TEMPCYC	-055C 125C	1606		0		
		16	0/70C	I	10CY	N.R.					
				I	REVBias	100C	1606	3.85E 04	0		
				I	EM		1606		20		
				I		N.R.					
VARIOUS	5483	DIP	N	03/76	VIS INS		550		0		
		16	-55/125	I	S&F EM	025C 070C	350		0		
				I	THRMSHK	000C 100C	350		0		
				I	15CY	MS-883	350		0		
				I	REVBias	125C	350	5.88E 04	0		
				I	S&F EM	070C	350		6:MFEF 705/2, 706/4		
				I		N.R.					
VARIOUS	5483	DIP	N	05/76	VIS INS		319		0		
		16	-55/125	I	S&F EM	025C 070C	319		0		
				I	THRMSHK	000C 100C	319		0		
				I	15CY	MS-883	319		0		
				I	REVBias	125C	319	5.36E 04	0		
				I	S&F EM	070C	319		5:MFEF 707/2, 708/3		
				I		N.R.					
VARIOUS	5483	DIP	N	07/76	VIS INS		1000		0		
		16	-55/125	I	S&F EM	025C 070C	1000		0		
				I	THRMSHK	000C 100C	1000		0		
				I	15CY	MS-883	1000		0		
				I	REVBias	125C	1000	1.68E 05	0		
				I	S&F EM	070C	1000		7:MFEF 709/5, 710/1		
				I		N.R.					
VARIOUS	5483	DIP	N	12/76	VIS INS		123		0		
		16	-55/125	I	S&F EM	025C 070C	123		0		
				I	THRMSHK	000C 100C	123		0		
				I	15CY	MS-883	123		0		
				I	REVBias	125C	123	2.07E 04	0		
				I	S&F EM	070C	123		2:MFEF 711/2		
				I		N.R.					
VARIOUS	7483	DIP	N	12/76	VIS INS		2111		0		
		16	0/70C	I	S&F EM	025C 070C	2111		0		
				I	THRMSHK	000C 100C	2111		0		
				I	15CY	MS-883	2111		0		
				I	REVBias	125C	2111	3.55E 05	0		
				I	S&F EM	070C	2111		17:MFEF 712/3, 713/3,714/4, 715/1,716/3		
				I		N.R.					

ADDER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RING	TEST SRC	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	//
VARIOUS	7483	DIP : N 16 : 0/70C	: 06/76	: VIS INS			560:		0:		
				: I		N.R.	560:		0:		
				: S&F EM	: 025C 070C		560:		0:		
				: I		N.R.	560:		0:		
				: THRM SHK	: 000C 100C	MS-883	560:		0:		
				: I	: 15CY	1011 A	560:		0:		
				: REVBIAS	: 125C		560:	9.41E 04	0:		
				: I		N.R.	560:		0:		
				: S&F EM	: 070C		560:		6:MFEF 717/4,		
				: I		N.R.	560:		718/2		
VARIOUS	7483	DIP : N 16 : 0/70C	: 06/76	: VIS INS			500:		0:		
				: I		N.R.	500:		0:		
				: S&F EM	: 025C 070C		500:		0:		
				: I		N.R.	500:		0:		
				: THRM SHK	: 000C 100C	MS-883	500:		0:		
				: I	: 15CY	1011 A	500:	8.40E 04	0:		
				: REVBIAS	: 125C		500:		0:		
				: I		N.R.	500:		7:MFEF 719/7		
				: S&F EM	: 070C		500:		0:		
				: I		N.R.	500:		0:		
VARIOUS	7483	DIP : N 16 : 0/70C	: 04/76	: VIS INS			1509:		0:		
				: I		N.R.	1509:		0:		
				: S&F EM	: 025C 070C		1509:		0:		
				: I		N.R.	1509:		0:		
				: THRM SHK	: 000C 100C	MS-883	1509:		0:		
				: I	: 15CY	1011 A	1509:	2.54E 05	0:		
				: REVBIAS	: 125C		1509:		0:		
				: I		N.R.	1509:		39:MFEF 720/3,		
				: S&F EM	: 070C		1509:		721/36		
				: I		N.R.	1509:		0:		
VARIOUS	7483	DIP : N 16 : 0/70C	: 03/76	: VIS INS			497:		0:		
				: I		N.R.	497:		0:		
				: S&F EM	: 025C 070C		497:		0:		
				: I		N.R.	497:		0:		
				: THRM SHK	: 000C 100C	MS-883	497:		0:		
				: I	: 15CY	1011 A	497:	8.35E 04	0:		
				: REVBIAS	: 125C		497:		0:		
				: I		N.R.	497:		0:		
				: S&F EM	: 070C		497:		0:		
				: I		N.R.	497:		0:		

BUFFER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE SCHOTTKY TTL							
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RING	TEST SRC	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	//
VARIOUS	74S40	DIP : N 14 : 0/70C	: 08/76	: VIS INS			1707:		0:		
				: I		N.R.	1707:		0:		
				: S&F EM	: 025C 070C		1707:		0:		
				: I		N.R.	1707:		0:		
				: THRM SHK	: 000C 100C	MS-883	1707:		0:		
				: I	: 15CY	1011 A	1707:	2.87E 05	0:		
				: REVBIAS	: 125C		1707:		0:		
				: I		N.R.	1707:		0:		
				: S&F EM	: 070C		1707:		7:MFEF 722/4,		
				: I		N.R.	1707:		723/3		
VARIOUS	74S40	DIP : N 14 : 0/70C	: 05/76	: VIS INS			500:		0:		
				: I		N.R.	500:		0:		
				: S&F EM	: 025C 070C		500:		0:		
				: I		N.R.	500:		0:		
				: THRM SHK	: 000C 100C	MS-883	500:		0:		
				: I	: 15CY	1011 A	500:	8.40E 04	0:		
				: REVBIAS	: 125C		500:		0:		
				: I		N.R.	500:		8:MFEF 724/5		
				: S&F EM	: 070C		500:		0:		
				: I		N.R.	500:		0:		

BUFFER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	THP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
VARIOUS	DIP : N		06/76	VIS INS			1000:		0:	
74S40	14 : 0/70C		I	S&F EM	025C 070C	N.R.	1000:		0:	
			I	THRMSHK	000C 100C	N.R.	1000:		0:	
			I	15CY		MS-883	1000:		0:	
			I	REVBIA	125C	1011 A	1000:	1.68E 05	0:	
			I	S&F EM	070C	N.R.	1000:		5:MFEF 725/5	
			I			N.R.				
VARIOUS	DIP : N		07/76	VIS INS			593:		0:	
74S40	14 : 0/70C		I	S&F EM	02 070C	N.R.	593:		0:	
			I	THRMSHK	000C 100C	N.R.	593:		0:	
			I	15CY		MS-883	593:		0:	
			I	REVBIA	125C	1011 A	593:	9.96E 04	0:	
			I	S&F EM	070C	N.R.	593:		1:	
			I			N.R.				
VARIOUS	DIP : N		12/76	VIS INS			100:		0:	
74S40	14 : 0/70C		I	S&F EM	025C 070C	N.R.	100:		0:	
			I	THRMSHK	000C 100C	N.R.	100:		0:	
			I	15CY		MS-883	100:		0:	
			I	REVBIA	125C	1011 A	100:	1.68E 04	0:	
			I	S&F EM	070C	N.R.	100:		1:MFEF 726/1	
			I			N.R.				
VARIOUS	DIP : N		05/76	VIS INS			50:		0:	
8197	16 : 0/70C		I	S&F EM	025C 070C	N.R.	50:		C:	
			I	THRMSHK	000C 100C	N.R.	50:		0:	
			I	15CY		MS-883	50:		0:	
			I	REVBIA	125C	1011 A	50:	8.40E 03	0:	
			I	S&F EM	070C	N.R.	50:		2:MFEF 727/2	
			I			N.R.				
VARIOUS	DIP : N		06/76	VIS INS			200:		0:	
8197	16 : 0/70C		I	S&F EM	025C 070C	N.R.	200:		0:	
			I	THRMSHK	000C 100C	N.R.	200:		0:	
			I	15CY		MS-883	200:		0:	
			I	REVBIA	125C	1011 A	200:	3.36E 04	0:	
			I	S&F EM	070C	N.R.	200:		0:	
			I			N.R.				
VARIOUS	DIP : N		06/76	VIS INS			175:		0:	
8197	16 : 0/70C		I	S&F EM	025C 070C	N.R.	175:		0:	
			I	THRMSHK	000C 100C	N.R.	175:		0:	
			I	15CY		MS-883	175:		0:	
			I	REVBIA	125C	1011 A	175:	2.94E 04	0:	
			I	S&F EM	070C	N.R.	175:		0:	
			I			N.R.				
VARIOUS	DIP : N		02/76	VIS INS			100:		0:	
8196	16 : 0/70C		I	S&F EM	025C 070C	N.R.	100:		0:	
			I	THRMSHK	000C 100C	N.R.	100:		0:	
			I	15CY		MS-883	100:		0:	
			I	REVBIA	125C	1011 A	100:	1.68E 04	0:	
			I	S&F EM	070C	N.R.	100:		0:	
			I			N.R.				

BUFFER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TMP RNG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY /#
VARIOUS	DIP	N	06/76	VIS INS			849:		0:	
8T98	16	0/70C	I	S&F EM	025C 070C	N.R.	849:		0:	
			I	THRM SHK	000C 100C	N.R.	849:		0:	
			I	15CY		MS-883	849:		0:	
			I	RZVBIAS	125C	1011 A	849:	1.43E 05	0:	
			I	S&F EM	070C	N.R.	649:		5:MFEEF 728/5	
			I			N.R.				

BUFFER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TMP RNG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY /#
SIGNETICS	FPK	N	08/75	VIS INS	30X	MM38510	449:		0:	
54H40	14	-55/125	Q	75X		2010 E	449:		0:	
			Q	BAKE	150C	MM38510	449:	1.08E 04	0:	
			Q	TEMP CYC	-065C 150C	1008 C	449:		0:	
			Q	10CY		MM38510	449:		0:	
			Q	CNSTACC	30FG 1 AXIS	1010 C	449:		10:	
			Q	1 MIN E		MM38510	439:		2:MFEEF 1889/2	
			Q	FINE LK	HE 5-E-8	1014 A	437:		0:	
			Q	GROSS LK	FLUOR 125C	MM38510	437:		0:	
			Q	3X		1014 C	437:		0:	
			Q	EM	025C	MM38510	437:		0:	
			Q	PAR EXC	125C	N.R.	437:		0:	
			Q	S&D EM	-055C 025C	MM38510	437:	7.34E 04	0:	
			Q	125C		1015 D	437:		2:	
			Q	VIC INS	3X	N.R.	435:		0:	
			Q	20X		MM38510	435:		0:	
			Q			2009				
SIGNETICS	DIP	N	08/75	VIS INS	30X	MM38510	1512:		0:	
54H40	14	-55/125	Q	75X		2010 E	1512:		0:	
			Q	BAKE	150C	MM38510	1512:	3.63E 04	0:	
			Q	TEMP CYC	-065C 150C	1008 C	1512:		0:	
			Q	10CY		MM38510	1512:		0:	
			Q	CNSTACC	30FG 1 AXIS	1010 C	1512:		23:	
			Q	1 MIN E		MM38510	1512:		9:MFEEF 1850/9	
			Q	FINE LK	HE 5-L-6	1014 A	1489:		3:MFEEF 1891/3	
			Q	GROSS LK	FLUOR 125C	MM38510	1480:		0:	
			Q	3X		1014 C	1477:		0:	
			Q	EM	025C	MM38510	1477:		0:	
			Q	PAR EXC	125C	N.R.	1477:		0:	
			Q	S&D EM	-055C 025C	MM38510	1477:	2.48E 05	0:	
			Q	125C		1015 D	1477:		29:	
			Q	VIS INS	3X	N.R.	1449:		48:	
			Q	20X		MM38510	1449:		0:	
			Q			2009				
VARIOUS	DIP	N	05/76	VIS INS			3075:		0:	
74H40	14	0/70C	I	S&F EM	025C 070C	N.R.	3075:		0:	
			I	THRM SHK	000C 100C	N.R.	3075:		0:	
			I	15CY		MS-883	3075:		0:	
			I	REMBIAS	125C	1011 A	3075:	5.17E 05	0:	
			I	S&F EM	070C	N.R.	3075:		11:MFEEF 729/7	
			I			N.R.				

BUFFER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE LS TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	
VARIOUS 74LS125	DIP : N 14	: 0/70C	: 09/76	: VIS INS			: 100:		: 0:		
			: I	: S&F EN	: 025C 070C	: N.R.	: 150:		: 0:		
			: I	: THRM SHK	: 000C 100C	: N.R.	: 100:		: 0:		
			: I	: 15CY		: MS-883	: 100:		: 0:		
			: I	: REVBIAS	: 125C	: 1011 A	: 100:	1-68E 04	: 0:		
			: I	: S&F EN	: 070C	: N.R.	: 100:		: 2: MFEF 730/2		
			: I			: N.R.					
VARIOUS 74LS125	DIP : N 14	: 0/70C	: 12/76	: VIS INS			: 100:		: 0:		
			: I	: S&F EN	: 025C 070C	: N.R.	: 100:		: 0:		
			: I	: THRM SHK	: 000C 100C	: N.R.	: 100:		: 0:		
			: I	: 15CY		: MS-883	: 100:		: 0:		
			: I	: REVBIAS	: 125C	: 1011 A	: 100:	1-68E 04	: 0:		
			: I	: S&F EN	: 070C	: N.R.	: 100:		: 0:		
			: I			: N.R.					
VARIOUS 74LS125	DIP : N 14	: 0/70C	: 12/76	: VIS INS			: 100:		: 0:		
			: I	: S&F EN	: 025C 070C	: N.R.	: 100:		: 0:		
			: I	: THRM SHK	: 000C 100C	: N.R.	: 100:		: 0:		
			: I	: 15CY		: MS-883	: 100:		: 0:		
			: I	: REVBIAS	: 125C	: 1011 A	: 100:	1-68E 04	: 0:		
			: I	: S&F EN	: 070C	: N.R.	: 100:		: 0:		
			: I			: N.R.					

BUFFER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR			OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
NATIONAL 7437	E-DIP 14	N.R. 0/70C	11/75 I	SDF EN	025C		1099:		5:	
			I	THRM SHK	000C 100C	N.R.	1094:		0:	
			I	15CY		N.R.	1094:	1-84E 05	0:	
			I	REVBIAS	100C	N.R.	1094:		0:	
			I	SDF EN	025C	N.R.	1094:		3:	
			I			N.R.				
NATIONAL 8095	E-DIP 16	N 0/70C	03/76 I	VIS INS			1124:		0:	
			I	S&F EN	025C 070C	N.R.	1124:		0:	
			I	THRM SHK	000C 100C	N.R.	1124:		0:	
			I	15CY		MS-883 1011 A	1124:		0:	
			I	REVBIAS	125C	N.R.	1124:	1-89E 05	0:	
			I	S&F EN	070C	N.R.	1124:		9: MFEF 731/9	
			I			N.R.				
NATIONAL 8097	E-DIP 16	N.R. 0/70C	11/75 I	SDF EN	025C		16910:		300:	
			I	THRM SHK	000C 100C	N.R.	13910:		0:	
			I	15CY		N.R.	13910:	2-34E 06	0:	
			I	REVBIAS	100C	N.R.	13910:		39:	
			I	SDF EN	025C	N.R.	13910:			
			I			N.R.				
NATIONAL 8097	E-DIP 16	N 0/70C	06/76 I	VIS INS			233:		0:	
			I	S&F EN	025C 070C	N.R.	233:		0:	
			I	THRM SHK	000C 100C	N.R.	233:		0:	
			I	15CY		MS-883 1011 A	233:		0:	
			I	REVBIAS	125C	N.R.	233:	3-91E 04	0:	
			I	S&F EN	070C	N.R.	233:		45:	
			I			N.R.				

BUFFER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY				OPERATIONAL TYPE							
MANUFACTURER	PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
NATIONAL	8097	E-DIP 16	N 0/70C	07/76	VIS INS			200		0	
					S&P EH	025C 070C	N.R.	200		0	
					THRM SHK	000C 100C	MS-883	200		0	
					15CY		1011 A	200		0	
					REVBias	125C		200	3.36E-04	0	
					S&P EH	070C	N.R.	200		1	REF 73271
NATIONAL	8097	E-DIP 16	N 0/70C	10/76	VIS INS			200		0	
					S&P EH	025C 070C	N.R.	200		0	
					THRM SHK	000C 100C	MS-883	200		0	
					15CY		1011 A	200		0	
					REVBias	125C		200	3.36E-04	0	
					S&P EH	070C	N.R.	200		5	REF 73271
NATIONAL	8097	E-DIP 16	N 0/70C	10/76	VIS INS			21		0	
					S&P EH	025C 070C	N.R.	21		0	
					THRM SHK	000C 100C	MS-883	21		0	
					15CY		1011 A	21		0	
					REVBias	125C		21	3.53E-03	0	
					S&P EH	070C	N.R.	21		0	
NATIONAL	8097	E-DIP 16	N 0/70C	11/76	VIS INS			300		0	
					S&P EH	025C 070C	N.R.	300		0	
					THRM SHK	000C 100C	MS-883	300		0	
					15CY		1011 A	300		0	
					REVBias	125C		300	5.04E-04	0	
					S&P EH	070C	N.R.	300		2	REF 73472
NATIONAL	8098	E-DIP 16	N 0/70C	06/76	VIS INS			420		0	
					S&P EH	025C 070C	N.R.	420		0	
					THRM SHK	000C 100C	MS-883	420		0	
					15CY		1011 A	420		0	
					REVBias	125C		420	7.06E-04	0	
					S&P EH	070C	N.R.	420		3	REF 73571, 73672
NATIONAL	8098	E-DIP 16	N 0/70C	07/76	VIS INS			200		0	
					S&P EH	025C 070C	N.R.	200		0	
					THRM SHK	000C 100C	MS-883	200		0	
					15CY		1011 A	200		0	
					REVBias	125C		200	3.36E-04	0	
					S&P EH	070C	N.R.	200		3	REF 73771, 73872
NATIONAL	8098	E-DIP 16	N 0/70C	07/76	VIS INS			300		0	
					S&P EH	025C 070C	N.R.	300		0	
					THRM SHK	000C 100C	MS-883	300		0	
					15CY		1011 A	300		0	
					REVBias	125C		300	5.04E-04	0	
					S&P EH	070C	N.R.	300		2	REF 73971, 74071

SUFFER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	THP ANG	SEC	TYPE	LEVEL	REF	TEST	HOURS	FIL	SUMMARY	
NATIONAL	E-DIP	N	11/76	VIS INS							
8098	16	0/70C	I	S&P EM	025C 070C	N.R.	150		0		
			I	THRESHK	000C 100C	N.R.	150		0		
			I	REVBAS	125C	MS-883	150		0		
			I	S&P EM	070C	1011 A	150	2.52E-04	0		
			I			N.R.	150		0		
			I			N.R.	150		0	REF-741/1	
SIGNETICS	DIP	N	03/75	VIS INS	30X	MM38510	338		0		
5438	14	55/125	Q	BAKE	150C	2010 B	338	8.11E-03	0		
			Q	TEMPCYC	-065C 150C	1008 C	338		0		
			Q	CNSTACC	300C 1 AXIS	1010 C	338		0		
			Q	FINE LK	HE 5-E-8	2001 E	338		0		
			Q	CROSSLK	FLUOR 125C	1014 A	334		0		
			Q	EM	025C	1014 C	334		0		
			Q	PAR-EXC	125C	N.R.	333	5.59E-04	0		
			Q	S&P EM	-035C 025C	MM38510	333		0		
			Q	VIS INS	3X	N.R.	323		0		
			Q			2009			0		
SIGNETICS	E-DIP	N.R.	11/75	S&P EM	025C		6947		33		
7438	14	0/70C	I	THRESHK	000C 100C	N.R.	6914		0		
			I	REVBAS	100C	N.R.	6914	1.16E-04	0		
			I	S&P EM	025C	N.R.	6914		17		
			I			N.R.			0		
T-I.	E-DIP	N.R.	01/75	TEMPCYC	-055C 125C		160		0		
7437	14	0/70C	I	REVBAS	100C	N.R.	160	3.84E-03	0		
			I	EM		N.R.	160		0		
			I			N.R.			0		
VARIOUS	DIP	N	05/76	VIS INS			4449		0		
74125	14	0/70C	I	S&P EM	025C 070C	N.R.	4449		0		
			I	THRESHK	000C 100C	N.R.	4449		0		
			I	REVBAS	125C	MS-883	4449	7.47E-05	0		
			I	S&P EM	070C	1011 A	4449		0		
			I			N.R.	4449		0	REF-742/1	
VARIOUS	DIP	N	12/76	VIS INS			4141		0		
74125	14	0/70C	I	S&P EM	025C 070C	N.R.	4141		0		
			I	THRESHK	000C 100C	N.R.	4141		0		
			I	REVBAS	125C	MS-883	4141	6.96E-05	0		
			I	S&P EM	070C	1011 A	4141		0		
			I			N.R.	4141		0	REF-743/1	
			I			N.R.			0	744/79	
VARIOUS	DIP	N	10/76	VIS INS			981		0		
74126	14	0/70C	I	S&P EM	025C 070C	N.R.	981		0		
			I	THRESHK	000C 100C	N.R.	981		0		
			I	REVBAS	125C	MS-883	981	1.65E-05	0		
			I	S&P EM	070C	1011 A	981		0		
			I			N.R.	981		0	REF-745/1	
			I			N.R.			0	746/72 747/9	

BUFFER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY			SIPOLAR			OPERATIONAL TYPE			TTL		
MANUFACTURER	PART NO	PKG/	SKN CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
		PINS	TEMP RNC	SEC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
VARIOUS	74126	DIP 14	N	12/76	VIS ISS			913		0	
				I	S&P EM	025C 070C	N.R.	913		0	
				I	THRESHK	000C 100C	N.R.	913		0	
				I	15CY		NS-883	913		0	
				I	REVBAS	125C	1011 A	913	1-53E-03	0	
				I	S&P EM	070C	N.R.	913		0	
				I			N.R.			0	5-REF 742/5
VARIOUS	7428	DIP 14	N	05/76	VIS ISS			596		0	
				I	S&P EM	025C 070C	N.R.	596		0	
				I	THRESHK	000C 100C	N.R.	596		0	
				I	15CY		NS-883	596		0	
				I	REVBAS	125C	1011 A	596	1-00E-03	0	
				I	S&P EM	070C	N.R.	596		0	
				I			N.R.			0	3-REF 743/1, 750/2
VARIOUS	7428	DIP 14	N	05/76	VIS ISS			1200		0	
				I	S&P EM	025C 070C	N.R.	1200		0	
				I	THRESHK	000C 100C	N.R.	1200		0	
				I	15CY		NS-883	1200		0	
				I	REVBAS	125C	1011 A	1200	2-02E-03	0	
				I	S&P EM	070C	N.R.	1200		0	
				I			N.R.			0	7-REF 751/3, 752/2
VARIOUS	7428	DIP 14	N	12/76	VIS ISS			223		0	
				I	S&P EM	025C 070C	N.R.	223		0	
				I	THRESHK	000C 100C	N.R.	223		0	
				I	15CY		NS-883	223		0	
				I	REVBAS	125C	1011 A	223	3-73E-04	0	
				I	S&P EM	070C	N.R.	223		0	
				I			N.R.			0	
VARIOUS	7433	DIP 14	N	02/76	VIS ISS			200		0	
				I	S&P EM	025C 070C	N.R.	200		0	
				I	THRESHK	000C 100C	N.R.	200		0	
				I	15CY		NS-883	200		0	
				I	REVBAS	125C	1011 A	200	3-36E-04	0	
				I	S&P EM	070C	N.R.	200		0	
				I			N.R.			0	5-REF 753/1, 754/4
VARIOUS	7433	DIP 14	N	05/76	VIS ISS			137		0	
				I	S&P EM	025C 070C	N.R.	137		0	
				I	THRESHK	000C 100C	N.R.	137		0	
				I	15CY		NS-883	137		0	
				I	REVBAS	125C	1011 A	137	2-30E-04	0	
				I	S&P EM	070C	N.R.	137		0	
				I			N.R.			0	5-REF 755/5
VARIOUS	7437	DIP 14	N.R.	11/75	S&P EM	025C		2476		0	
				I	THRESHK	000C 100C	N.R.	2476		0	
				I	15CY		N.R.	2476		0	
				I	REVBAS	100C	N.R.	2476	4-16E-05	0	
				I	S&P EM	025C	N.R.	2476		0	
				I			N.R.			0	

BUFFER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY		BIPOLAR		OPERATIONAL TYPE		TTL							
MANUFACTURER	PART NO	PKG/ PINS	SCR CL/ TNP RKG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#	
VARIOUS	7437	DIP : N 14	0/70C	04/76	VIS INS			1935:		0:			
				I	S&F EM	025C 070C	N.R.	1935:		0:			
				I	THRMSHK	000C 100C	N.R.	1935:		0:			
				I	15CY		MS-883	1935:		0:			
				I	REVBIA	125C	1011 A	1935:	3.25E 05	0:			
				I	S&F EM	070C	N.R.	1935:		15:MFEF 756/4, 757/11			
				I			N.R.						
VARIOUS	7437	DIP : N 14	0/10C	07/76	VIS INS			1000:		0:			
				I	S&F EM	025C 070C	N.R.	1000:		0:			
				I	THRMSHK	000C 100C	N.R.	1000:		0:			
				I	15CY		MS-883	1000:		0:			
				I	REVBIA	125C	1011 A	1000:	1.68E 05	0:			
				I	S&F EM	070C	N.R.	1000:		4:MFEF 758/4			
				I			N.R.						
VARIOUS	7437	DIP : N 14	0/70C	08/76	VIS INS			1000:		0:			
				I	S&F EM	025C 070C	N.R.	1000:		0:			
				I	THRMSHK	000C 100C	N.R.	1000:		0:			
				I	15CY		MS-883	1000:		0:			
				I	REVBIA	125C	1011 A	1000:	1.68E 05	0:			
				I	S&F EM	070C	N.R.	1000:		10:MFEF 759/9			
				I			N.R.						
VARIOUS	7437	DIP : N 14	0/70C	10/76	VIS INS			1600:		0:			
				I	S&F EM	025C 070C	N.R.	1600:		0:			
				I	THRMSHK	000C 100C	N.R.	1600:		0:			
				I	15CY		MS-883	1600:		0:			
				I	REVBIA	125C	1011 A	1600:	2.69E 05	0:			
				I	S&F EM	070C	N.R.	1600:		14:MFEF 760/14			
				I			N.R.						
VARIOUS	7437	DIP : N 14	0/70C	11/76	VIS INS			700:		0:			
				I	S&F EM	025C 070C	N.R.	700:		0:			
				I	THRMSHK	000C 100C	N.R.	700:		0:			
				I	15CY		MS-883	700:		0:			
				I	REVBIA	125C	1011 A	700:	1.18E 05	0:			
				I	S&F EM	070C	N.R.	700:		1:MFEF 761/1			
				I			N.R.						
VARIOUS	7437	DIP : N 14	0/70C	12/76	VIS INS			1164:		0:			
				I	S&F EM	025C 070C	N.R.	1164:		0:			
				I	THRMSHK	000C 100C	N.R.	1164:		0:			
				I	15CY		MS-883	1164:		0:			
				I	REVBIA	125C	1011 A	1164:	1.96E 05	0:			
				I	S&F EM	070C	N.R.	1164:		11:MFEF 762/11			
				I			N.R.						
VARIOUS	7437	DIP : N 14	0/70C	12/76	VIS INS			30:		0:			
				I	S&F EM	025C 070C	N.R.	30:		0:			
				I	TEMPCYC	1-055C 125C	N.R.	30:		0:			
				I	15CY		MS-883	30:		0:			
				I	REVBIA	125C	1010 B	30:	5.04E 03	0:			
				I	S&F EM	070C	N.R.	30:		0:			
				I			N.R.						

BUFFER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR			OPERATIONAL TYPE TTL									FAILURE	
MANUFACTURER	PKG/	SCK CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FLD	SUMMARY		
PART NO	PINS	TEMP KMG	SRC	TYPE	LEVEL	REF.	TEST	HOURS					
VARIOUS	DIP : N	12/76	VIS INS				250:		0:				
7437	14 : 0/70C	I	S&F EM	025C	070C	N.R.	250:		0:				
		I	THRMSHK	000C	100C	N.R.	250:		0:				
		I	15CY			MS-883	250:		0:				
		I	REVBIA	125C		1011 A	250:	4.20E 04	0:				
		I	S&F EM	070C		N.R.	250:		1:MFEF 763/1				
		I				N.R.							
VARIOUS	DIP : N.R.	11/75	SDF EM	025C			2412:		37:				
7438	14 : 0/70C	I	THRMSHK	000C	100C	N.R.	2375:		0:				
		I	15CY			N.R.	2375:	3.99E 05	0:				
		I	REVBIA	100C		N.R.	2375:		1:				
		I	SDF EM	025C		N.R.							
		I											
VARIOUS	DIP : N	10/76	VIS INS				7200:		0:				
7438	14 : 0/70C	I	S&F EM	025C	070C	N.R.	7200:		0:				
		I	THRMSHK	000C	100C	N.R.	7200:		0:				
		I	15CY			MS-883	7200:		0:				
		I	REVBIA	125C		1011 A	7200:	1.21E 06	0:				
		I	S&F EM	070C		N.R.	7200:		50:MFEF 764/4,				
		I				N.R.			765/35,766/1,				
		I							767/10				
		I											
VARIOUS	DIP : N	12/76	VIS INS				4248:		0:				
7438	14 : 0/70C	I	S&F EM	025C	070C	N.R.	4248:		0:				
		I	THRMSHK	000C	100C	N.R.	4.48:		0:				
		I	15CY			MS-883	4.48:		0:				
		I	REVBIA	125C		1011 A	4248:	7.14E 05	0:				
		I	S&F EM	070C		N.R.	4248:		73:MFEF 768/73				
		I				N.R.							
VARIOUS	DIP : N	12/76	VIS INS				1000:		0:				
7438	14 : 0/70C	I	S&F EM	025C	070C	N.R.	1000:		0:				
		I	THRMSHK	000C	100C	N.R.	1000:		0:				
		I	15CY			MS-883	1000:		0:				
		I	REVBIA	125C		1011 A	1000:	1.68E 05	0:				
		I	S&F EM	070C		N.R.	1000:		2:MFEF 769/2				
		I				N.R.							
VARIOUS	DIP : N	05/76	VIS INS				500:		0:				
7438	14 : 0/70C	I	S&F EM	025C	070C	N.R.	500:		0:				
		I	THRMSHK	000C	100C	N.R.	500:		0:				
		I	15CY			MS-883	500:		0:				
		I	REVBIA	125C		1011 A	500:	8.40E 04	0:				
		I	S&F EM	070C		N.R.	500:		7:MFEF 770/7				
		I				N.R.							
VARIOUS	DIP : N	12/76	VIS INS				1540:		0:				
7438	14 : 0/70C	I	S&F EM	025C	070C	N.R.	1540:		0:				
		I	THRMSHK	000C	100C	N.R.	1540:		0:				
		I	15CY			MS-883	1540:		0:				
		I	REVBIA	125C		1011 A	1540:	2.59E 05	0:				
		I	S&F EM	070C		N.R.	1540:		11:MFEF 771/1,				
		I				N.R.			772/3,773/2				

BUFFER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LL HL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
VARIOUS 7440	DIP 14	N 0/70C	03/76	VIS INS			25537		0:		
			I	S&F EM	025C 070C	N.R.	25537		0:		
			I	THRMSHK	000C 100C	N.R.	25537		0:		
			I	15CY		MS-883	25537		0:		
			I	REVBias	125C	1011 A	25538	4.29E 06	0:		
			I	S&F EM	070C	N.R.	25538		387:MFEF 774/7,		
			I			N.R.			775/219,		
									776/91,		
									777/69		

COMPARATOR

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE SCHOTTKY TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
VARIOUS 74S85	DIP 16	N 0/70C	08/76	VIS INS			25		0:		
			I	S&F EM	025C 070C	N.R.	25		0:		
			I	THRMSHK	000C 100C	N.R.	25		0:		
			I	15CY		MS-883	25		0:		
			I	REVBias	125C	1011 A	25	4.20E 03	0:		
			I	S&F EM	070C	N.R.	25		1:MFEF 778/1		
			I			N.R.					
VARIOUS 74S85	DIP 16	N 0/70C	11/76	VIS INS			75		0:		
			I	S&F EM	025C 070C	N.R.	75		0:		
			I	THRMSHK	000C 100C	N.R.	75		0:		
			I	15CY		MS-883	75		0:		
			I	REVBias	125C	1011 A	75	1.26E 04	0:		
			I	S&F EM	070C	N.R.	75		2:MFEF 779/2		
			I			N.R.					

COMPARATOR

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE LOW POWER TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
T.I. 74LS5	E-DIP 16	N.K. 0/70C	11/75	SDF EM	025C		200		0:		
			I	THRMSHK	000C 100C	N.R.	200		0:		
			I	15CY		N.R.	200	3.36E 04	0:		
			I	REVBias	100C	N.R.	200		0:		
			I	SDF EM	025C	N.R.	200		0:		
VARIOUS 74LS5	DIP 16	N 0/70C	05/76	VIS INS			25		0:		
			I	S&F EM	025C 070C	N.R.	25		0:		
			I	THRMSHK	000C 100C	N.R.	25		0:		
			I	15CY		MS-883	25		0:		
			I	REVBias	125C	1011 A	25	4.20E 03	0:		
			I	S&F EM	070C	N.R.	25		0:		
			I			N.R.					

COMPARATOR				ENVIRONMENTAL BURN-IN				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY		BIPOLAR		OPERATIONAL TYPE				LS TTL			
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TEMP RING	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY /#	
VARIOUS	D1.	N	08/76	VIS INS			520:		0:		
74LS85	16	0/70C	I	S&F EM	025C 070C	N.R.	520:		0:		
			I	THKMSHK	000C 100C	N.R.	520:		0:		
			I	15CY		MS-883	520:		0:		
			I	REVBIA	125C	1011 A	520:	8.74E 04	0:		
			I	S&F EM	070C	N.R.	520:		9:	MFEF 780/9	
			I			N.R.					

COMPARATOR		ENVIRONMENTAL BURN-IN						RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY		BIPOLAR		OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TEMP RING	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY /#	
NATIONAL	E-DIP	N	05/76	VIS INS			125:		0:		
8160	16	0/70C	I	S&F EM	025C 070C	N.R.	125:		0:		
			I	THRMSHK	000C 100C	MS-883	125:		0:		
			I	15CY		1011 A	125:	2.10E 04	0:		
			I	REVBIA	125C	N.R.	125:		1:MFEF 781/1		
			I	S&F EM	070C	N.R.	125:				
NATIONAL	E-DIP	N	06/76	VIS INS			200:		0:		
8160	16	0/70C	I	S&F EM	025C 070C	N.R.	200:		0:		
			I	THRMSHK	000C 100C	MS-883	200:		0:		
			I	15CY		1011 A	200:	3.36E 04	0:		
			I	REVBIA	125C	N.R.	200:		3:MFEF 782/3		
			I	S&F EM	070C	N.R.	200:				
NATIONAL	E-DIP	N	12/76	VIS INS			49:		0:		
8160	16	0/70C	I	S&F EM	025C 070C	N.R.	49:		0:		
			I	THRMSHK	000C 100C	MS-883	49:		0:		
			I	15CY		1011 A	49:	6.23E 03	0:		
			I	REVBIA	125C	N.R.	49:		0:		
			I	S&F EM	070C	N.R.	49:		0:		
NATIONAL	E-DIP	N	06/76	VIS INS			60:		0:		
8200	16	0/70C	I	S&F EM	025C 070C	N.R.	50:		0:		
			I	THRMSHK	000C 100C	MS-883	60:		0:		
			I	15CY		1011 A	60:	1.01E 04	0:		
			I	REVBIA	125C	N.R.	60:		0:		
			I	S&F EM	070C	N.R.	60:		0:		
NATIONAL	E-DIP	N	10/76	VIS INS			100:		0:		
8200	16	0/70C	I	S&F EM	025C 070C	N.R.	100:		0:		
			I	THRMSHK	000C 100C	MS-883	100:		0:		
			I	15CY		1011 A	100:	1.68E 04	0:		
			I	REVBIA	125C	N.R.	100:		0:		
			I	S&F EM	070C	N.R.	100:		0:		
T.I.	E-DIP	N.R.	11/75	S&F EM	025C		106:		2:		
7485	16	0/70C	I	THRMSHK	000C 100C	N.R.	104:		0:		
			I	15CY		N.R.	104:	1.75E 04	0:		
			I	REVBIA	100C	N.R.	104:		0:		
			I	S&F EM	025C	N.R.	104:		0:		

COMPARATOR

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	Pkg/ PINS	SCR CL/ TMP RNG	DATE/ SR	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	11
T.I. 7485	E-DIP 16	N.R. 0/70C	01/75 1	TEMPCYC :REVBias	-055C 125C :10CY :100C	N.R.	619:		0:		
			1	EM		N.R.	619:	1.49E 04	0:		
			1			N.R.	619:		18:		
VARIOUS 7485	DIP : N 16	0/70C	04/76 1	VIS INS :S&F EM	:025C 070C	N.R.	299:		0:		
			1	THRMSHK	:000C 100C	MS-883	299:		0:		
			1	:15CY	:125C	1011 A	299:	5.02E 04	0:		
			1	:REVBias	:125C	N.R.	299:				
			1	:S&F EM	:070C	N.R.	299:		13:MFEF 783/5, 784/8		
VARIOUS 7485	DIP : N 16	0/70C	06/76 1	VIS INS :S&F EM	:025C 070C	N.R.	181:		0:		
			1	THRMSHK	:000C 100C	MS-883	181:		0:		
			1	:15CY	:125C	1011 A	181:	3.04E 04	0:		
			1	:REVBias	:125C	N.R.	181:				
			1	:S&F EM	:070C	N.R.	181:		1:MFEF 785/1		
VARIOUS 7485	DIP : N 16	0/70C	05/76 1	VIS INS :S&F EM	:025C 070C	N.R.	200:		0:		
			1	THRMSHK	:000C 100C	MS-883	200:		0:		
			1	:15CY	:125C	1011 A	200:	3.36E 04	0:		
			1	:REVBias	:125C	N.R.	200:				
			1	:S&F EM	:070C	N.R.	200:		1:MFEF 786/1		
VARIOUS 7485	DIP : N 16	0/70C	06/76 1	VIS INS :S&F EM	:025C 070C	N.R.	73:		0:		
			1	THRMSHK	:000C 100C	MS-883	73:		0:		
			1	:15CY	:125C	1011 A	73:	1.23E 04	0:		
			1	:REVBias	:125C	N.R.	73:				
			1	:S&F EM	:070C	N.R.	73:		1:MFEF 787/1		
VARIOUS 7485	DIP : N 16	0/70C	08/76 1	VIS INS :S&F EM	:025C 070C	N.R.	546:		0:		
			1	THRMSHK	:000C 100C	MS-883	546:		0:		
			1	:15CY	:125C	1011 A	546:	9.17E 04	0:		
			1	:REVBias	:125C	N.R.	546:				
			1	:S&F EM	:070C	N.R.	546:		2:MFEF 788/2		
VARIOUS 7485	DIP : N 16	0/70C	07/76 1	VIS INS :S&F EM	:025C 070C	N.R.	300:		0:		
			1	THRMSHK	:000C 100C	MS-883	300:		0:		
			1	:15CY	:125C	1011 A	300:	5.04E 04	0:		
			1	:REVBias	:125C	N.R.	300:				
			1	:S&F EM	:070C	N.R.	300:		2:		

RELIABILITY ANALYSIS CENTER

OPERATIONAL TYPE ITL

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COMPARATOR

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 8324/9324	DIP 16	N 0/70C	12/76	VIS INS I			800:		0:	
				S&F EM	025C 0/0C	N.R.	800:		0:	
				THRM SHK	000C 100C	N.R.	800:		0:	
				15CY		1011 A	800:	1.34E 05	0:	
				REVB IAS	125C	N.R.	800:		0:	
				S&F EM	070C	N.R.	800:		8:MFEF 801/8	
VARIOUS 8324/9324	DIP 16	N 0/70C	12/76	VIS INS I			500:		0:	
				S&F EM	025C 070C	N.R.	500:		0:	
				THRM SHK	000C 100C	N.R.	500:		0:	
				15CY		1011 A	500:	8.40E 04	0:	
				REVB IAS	125C	N.R.	500:		0:	
				S&F EM	070C	N.R.	500:		8:MFEF 802/8	

CUSTOM

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE PHOS,STATIC

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NITRON	DIP 40	N N.R.	08/77	BAKE U	150C	MS-883 1008 C	12809:	3.07E 05	0:	
				TEMP CYC	-065C 150C	MS-883	12809:		0:	
				10CY		1010 C				
				CNST ACC	20KG 1 AXIS	MS-883	1.809:		0:	
				1 MIN E		2001 D				
				FINE LK	HE 5.E-7	MS-883	12809:		93:MFEF 1892/93	
				60 MIN		1014 A				
				GROSS LK	FLUOR 125C	MS-883	12809:		47:MFEF 1893/47	
				3X		1014 C				
				FNCT EM	085C	MS-883	12669:		999:	
				U		N.R.			67:	
				N.A.			0:			
				U		N.R.				
NITRON	DIP 40	N N.R.	06/77	BAKE U	150C	MS-883 1008 C	3632:	8.72E 04	0:	
				TEMP CYC	-065C 150C	MS-883	3632:		0:	
				10CY		1010 C				
				CNST ACC	20KG 1 AXIS	MS-883	3632:		0:	
				1 MIN E		2001 D				
				FINE LK	HE 5.E-7	MS-883	3632:		15:MFEF 1894/15	
				60 MIN		1014 A				
				GROSS LK	FLUOR 125C	MS-883	3632:		11:MFEF 1895/11	
				3X		1014 C				
				FNCT EM	085C	MS-883	3606:		177:	
				U		N.R.				

COUNTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ADV MICRO DEV 93L16	E-DIP 16	N.R. 0/70C	11/75	SDF EM I	025C		1146:		7:	
				THRM SHK	000C 100C	N.R.	1139:		0:	
				5CYC		N.R.	1139:	1.91E 05	0:	
				REVB IAS	100C	N.R.	1139:		8:	
				SDF EM	025C	N.R.	1139:			
ADV MICRO DEV 93L16	E-DIP 16	N.R. 0/70C	11/75	REVB IAS I	100C		3830:	6.43E 05	0:	
				SDF EM	025C	N.R.	3830:		48:	
				I		N.R.				

COUNTER			ENVIRONMENTAL BURN-IN						RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR			OPERATIONAL TYPE LOW POWER TTL									
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#	
NATIONAL 74L193	E-DIP 16	N.R. 0/70C	11/75 I	SDF EM I	025C 100C	N.R.	5877	56				
				THRMSHK I	000C 5CYC	N.R.	5821	0				
				REVBIA I	100C 025C	N.R.	5821	9.70E 05	0			
				SDF EM I	025C 100C	N.R.	5821	25				
						N.R.						
VARIOUS 74L193	DIP 16	N.R. 0/70C	11/75 I	SDF EM I	025C 100C	N.R.	6355	181				
				THRMSHK I	000C 5CYC	N.R.	6174	0				
				REVBIA I	100C 025C	N.R.	6174	1.04E 06	0			
				SDF EM I	025C 100C	N.R.	6174	12				
						N.R.						
VARIOUS 74L193	DIP 16	N 0/70C	08/76 I	VIS INS I		N.R.	200	0				
				S&F EM I	025C 070C	N.R.	200	0				
				THRMSHK I	000C 15CY	MS-883 1011 A	260	0				
				REVBIA I	125C 070C	N.R.	200	3.30E 04	0			
				S&F EM I	070C	N.R.	200	5:HFEE 803/2, 804/3				
VARIOUS 74L193	DIP 16	N 0/70C	09/76 I	VIS INS I		N.R.	920	0				
				S&F EM I	025C 070C	N.R.	920	0				
				THRMSHK I	000C 15CY	MS-883 1011 A	920	0				
				REVBIA I	125C 070C	N.R.	920	1.55E 05	0			
				S&F EM I	070C	N.R.	920	9:HFEE 805/3				

COUNTER		ENVIRONMENTAL BURN-IN						RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR			OPERATIONAL TYPE LS TTL								
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
1-I. 74LS193	E-DIP 16	N.R. 0/70C	11/75 I	SDF EM I	025C 100C	N.R.	5141	154			
				THRMSHK I	000C 5CYC	N.R.	4987	0			
				REVBIA I	100C 025C	N.R.	4987	8.38E 05	0		
				SDF EM I	025C 100C	N.R.	4987	40			
VARIOUS 74LS90	DIP 14	N 0/70C	09/76 I	VIS INS I		N.R.	250	0			
				S&F EM I	025C 070C	N.R.	250	0			
				THRMSHK I	000C 15CY	MS-883 1011 A	250	0			
				REVBIA I	125C 070C	N.R.	250	4.20E 04	0		
				S&F EM I	070C	N.R.	250	3:HFEE 806/1, 807/2			
VARIOUS 74LS92	DIP 14	N 0/70C	09/76 I	VIS INS I		N.R.	100	0			
				S&F EM I	025C 070C	N.R.	100	0			
				THRMSHK I	000C 15CY	MS-883 1011 A	100	0			
				REVBIA I	125C 070C	N.R.	100	1.68E 04	0		
				S&F EM I	070C	N.R.	100	0			

COUNTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
VARIOUS	DIP	N	09/76	VIS INS			405		0		
74LS93	14	0/70C	I	S&F EM	025C 070C	N.R.	405		0		
			I	THRMSHK	000C 100C	N.R.	405		0		
			I	15CY		1011 A	405		0		
			I	REVBIA	125C		405	6.80E 04	0		
			I	S&F EM	070C	N.R.	405		3:MPEF 808/3		
			I			N.R.					

COUNTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
FAIRCHILD	E-DIP	N	12/76	VIS INS			50		0		
9305	14	0/70C	I	S&F EM	025C 070C	N.R.	50		0		
			I	THRMSHK	000C 100C	N.R.	50		0		
			I	15CY		1011 A	50		0		
			I	REVBIA	125C		50	8.40E 03	0		
			I	S&F EM	070C	N.R.	50		0		
			I			N.R.					
FAIRCHILD	E-DIP	N	12/76	VIS INS			50		0		
9305	14	0/70C	I	S&F EM	025C 070C	N.R.	50		0		
			I	THRMSHK	000C 100C	N.R.	50		0		
			I	15CY		1011 A	50		0		
			I	REVBIA	125C		50	8.40E 03	0		
			I	S&F EM	070C	N.R.	50		0		
			I			N.R.					
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	025C		499		14		
74160	16	0/70C	I	THRMSHK	000C 100C	N.R.	485		0		
			I	15CY		N.R.	485		0		
			I	REVBIA	100C		485	8.15E 04	0		
			I	SDF EM	025C	N.R.	485		0		
			I			N.R.					
SIGNETICS	F-DIP	N.R.	11/75	SDF EM	025C		5066		81		
74161	16	0/70C	I	THRMSHK	000C 100C	N.R.	4985		0		
			I	15CY		N.R.	4985		0		
			I	REVBIA	100C		4985	8.37E 05	0		
			I	SDF EM	025C	N.R.	4985		25		
			I			N.R.					
SIGNETICS	E-DIP	N.R.	11/75	REVBIA	100C		775	1.30E 05	0		
7493	14	0/70C	I	SDF EM	025C	N.R.	775		15		
			I			N.R.					
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		1100		7		
7493	14	0/70C	I	THRMSHK	000C 100C	N.R.	1093		0		
			I	15CY		N.R.	1093		0		
			I	REVBIA	100C		1093	1.84E 05	0		
			I	SDF EM	025C	N.R.	1093		0		
			I			N.R.					
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		1971		33		
74160	16	0/70C	I	THRMSHK	000C 100C	N.R.	1938		0		
			I	15CY		N.R.	1938		0		
			I	REVBIA	100C		1938	3.26E 05	0		
			I	SDF EM	025C	N.R.	1938		7		
			I			N.R.					

COUNTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
VARIOUS 74161	DIP 16	N.R. 0/70C	11/75 I	SDF EM :025C		N.R.	5149:		87:		
			I	THPMSHK :000C	100C	N.R.	5062:		0:		
			I	5CYC		N.R.	5062:	8.50E 05	0:		
			I	REVBIA5 :100C		N.R.	5062:		14:		
			I	SDF EM :025C		N.R.	5062:				
			I			N.R.					
VARIOUS 74161	DIP 16	N 0/70C	01/76 I	VIS INS :025C	070C	N.R.	4447:		0:		
			I	S&F EM :025C		N.R.	4447:		0:		
			I	THPMSHK :000C	100C	MS-883	4447:		0:		
			I	15CY		1011 A	4447:	7.47E 05	0:		
			I	REVBIA5 :125C		N.R.	4447:		544:MFEF 809/544		
			I	S&F EM :070C		N.R.	4447:				
			I			N.R.					
VARIOUS 74161	DIP 16	N 0/70C	05/76 I	VIS INS :025C	070C	N.R.	3022:		0:		
			I	S&F EM :025C		N.R.	3022:		0:		
			I	THPMSHK :000C	100C	MS-883	3022:		0:		
			I	15CY		1011 A	3022:	5.08E 05	0:		
			I	REVBIA5 :125C		N.R.	3022:		82:MFEF 810/9,		
			I	S&F EM :070C		N.R.	3022:		811/9, 812/62		
			I			N.R.					
VARIOUS 74161	DIP 16	N 0/70C	12/76 I	VIS INS :025C	070C	N.R.	2666:		0:		
			I	S&F EM :025C		N.R.	2666:		0:		
			I	THPMSHK :000C	100C	MS-883	2666:		0:		
			I	15CY		1011 A	2666:	4.48E 05	0:		
			I	REVBIA5 :125C		N.R.	2666:		75:MFEF 813/1,		
			I	S&F EM :070C		N.R.	2666:		814/4, 815/2,		
			I			N.R.			816/25, 817/8		
VARIOUS 74161	DIP 16	N 0/70C	11/76 I	VIS INS :025C	070C	N.R.	1046:		0:		
			I	S&F EM :025C		N.R.	1046:		0:		
			I	THPMSHK :000C	100C	MS-883	1046:		0:		
			I	15CY		1011 A	1046:	1.76E 05	0:		
			I	REVBIA5 :125C		N.R.	1046:		5:MFEF 818/2,		
			I	S&F EM :070C		N.R.	1046:		819/3		
			I			N.R.					
VARIOUS 74191	DIP 16	N 0/70C	03/76 I	VIS INS :025C	070C	N.R.	225:		0:		
			I	S&F EM :025C		N.R.	225:		0:		
			I	THPMSHK :000C	100C	MS-883	225:		0:		
			I	15CY		1011 A	225:	3.78E 04	0:		
			I	REVBIA5 :125C		N.R.	225:		0:		
			I	S&F EM :070C		N.R.	225:		0:		
			I			N.R.					
VARIOUS 74192	DIP 16	N 0/70C	05/76 I	VIS INS :025C	070C	N.R.	800:		0:		
			I	S&F EM :025C		N.R.	800:		0:		
			I	THPMSHK :000C	100C	MS-883	800:		0:		
			I	15CY		1011 A	800:	1.34E 05	0:		
			I	REVBIA5 :125C		N.R.	800:		5:MFEF 820/2,		
			I	S&F EM :070C		N.R.	800:		821/3		
			I			N.R.					

RELIABILITY ANALYSIS CENTER

OPERATIONAL TYPE TTL

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 74193	DIP : N 16 : 0/70C		04/76	VIS INS : I : SAF EM : THRMSEK : 15CY : REVBIAS : I : SAF EM : I	: : 025C 070C : 000C 100C : 125C : 070C	: : N.R. : N.R. : MS-883 : 1011 A : N.R. : N.R.	: : 2497: : 2497: : 2497: : 2497: : 2497: : 2497:	: : : : 4.19E 05 : :	: : 0: : 0: : 0: : 0: : 0: : 0:	: : : : : 8:MFEF 836/8 :
VARIOUS 74193	DIP : N 16 : 0/70C		04/76	VIS INS : I : SAF EM : THRMSEK : 15CY : REVBIAS : I : SAF EM : I	: : 025C 070C : 000C 100C : 125C : 070C	: : N.R. : N.R. : MS-883 : 1011 A : N.R. : N.R.	: : 913: : 913: : 913: : 913: : 913: : 913:	: : : : 1.53E 05 : :	: : 0: : 0: : 0: : 0: : 0: : 0:	: : : : 30:MFEF 837/8, : 838/11, 839/7 :
VARIOUS 74193	DIP : N 16 : 0/70C		05/76	VIS INS : I : SAF EM : THRMSEK : 15CY : REVBIAS : I : SAF EM : I	: : 025C 070C : 000C 100C : 125C : 070C	: : N.R. : N.R. : MS-883 : 1011 A : N.R. : N.R.	: : 2000: : 2000: : 2000: : 2000: : 2000: : 2000:	: : : : 3.36E 05 : :	: : 0: : 0: : 0: : 0: : 0: : 0:	: : : : 95:MFEF 840/1, : 841/62, 842/24 :
VARIOUS 74193	DIP : N 16 : 0/70C		05/76	VIS INS : I : SAF EM : THRMSEK : 15CY : REVBIAS : I : SAF EM : I	: : 025C 070C : 000C 100C : 125C : 070C	: : N.R. : N.R. : MS-883 : 1011 A : N.R. : N.R.	: : 1243: : 1243: : 1243: : 1243: : 1243: : 1243:	: : : : 2.09E 05 : :	: : 0: : 0: : 0: : 0: : 0: : 0:	: : : : 3:MFEF 843/3 :
VARIOUS 74193	DIP : N 16 : 0/70C		06/76	VIS INS : I : SAF EM : THRMSEK : 15CY : REVBIAS : I : SAF EM : I	: : 025C 070C : 000C 100C : 125C : 070C	: : N.R. : N.R. : MS-883 : 1011 A : N.R. : N.R.	: : 2000: : 2000: : 2000: : 2000: : 2000: : 2000:	: : : : 3.36E 05 : :	: : 0: : 0: : 0: : 0: : 0: : 0:	: : : : 18:MFEF 844/1, : 845/3, 846/14 :
VARIOUS 74193	DIP : N 16 : 0/70C		07/76	VIS INS : I : SAF EM : THRMSEK : 15CY : REVBIAS : I : SAF EM : I	: : 025C 070C : 000C 100C : 125C : 070C	: : N.R. : N.R. : MS-883 : 1011 A : N.R. : N.R.	: : 2000: : 2000: : 2000: : 2000: : 2000: : 2000:	: : : : 3.36E 05 : :	: : 0: : 0: : 0: : 0: : 0: : 0:	: : : : 21:MFEF 847/4, : 848/16 :
VARIOUS 74193	DIP : N 16 : 0/70C		08/76	VIS INS : I : SAF EM : THRMSEK : 15CY : REVBIAS : I : SAF EM : I	: : 025C 070C : 000C 100C : 125C : 070C	: : N.R. : N.R. : MS-883 : 1011 A : N.R. : N.R.	: : 2000: : 2000: : 2000: : 2000: : 2000: : 2000:	: : : : 3.36E 05 : :	: : 0: : 0: : 0: : 0: : 0: : 0:	: : : : 31:MFEF 849/10, : 850/21 :

COUNTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RING	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
VARIOUS 74193	DIP 16	N 0/70C	11/76 I	VIS INS S&F EM	025C 070C	N.R.	1479		0		
			I	THRMSHK	000C 100C	N.R.	1479		0		
			I	15CY		MS-883	1479		0		
			I	REVBIA	125C	1011 A	1479	2.48E 05	0		
			I	S&F EM	070C	N.R.	1479		0		
			I			N.R.	1479		34:MFEF 851/2,		
									852/3, 853/28		
VARIOUS 74193	DIP 16	N 0/70C	12/76 I	VIS INS S&F EM	025C 070C	N.R.	1075		0		
			I	THRMSHK	000C 100C	N.R.	1075		0		
			I	15CY		MS-883	1075		0		
			I	REVBIA	125C	1011 A	1075	1.81E 05	0		
			I	S&F EM	070C	N.R.	1075		0		
			I			N.R.	1075		4:MFEF 854/2,		
									855/2		
VARIOUS 74193	DIP 16	N 0/70C	12/76 I	VIS INS S&F EM	025C 070C	N.R.	520		0		
			I	THRMSHK	000C 100C	N.R.	520		0		
			I	15CY		MS-883	520		0		
			I	REVBIA	125C	1011 A	520	8.74E 04	0		
			I	S&F EM	070C	N.R.	520		0		
			I			N.R.	520		2:MFEF 856/2		
VARIOUS 74193	DIP 16	N 0/70C	12/76 I	VIS INS S&F EM	025C 070C	N.R.	200		0		
			I	THRMSHK	000C 100C	N.R.	200		0		
			I	15CY		MS-883	200		0		
			I	REVBIA	125C	1011 A	200	3.36E 04	0		
			I	S&F EM	070C	N.R.	200		0		
			I			N.R.	200		0		
VARIOUS 74193	DIP 16	N 0/70C	12/76 I	VIS INS S&F EM	025C 070C	N.R.	817		0		
			I	THRMSHK	000C 100C	N.R.	817		0		
			I	15CY		MS-883	817		0		
			I	REVBIA	125C	1011 A	817	1.37E 05	0		
			I	S&F EM	070C	N.R.	817		0		
			I			N.R.	817		4:MFEF 857/1		
VARIOUS 74193	DIP 16	N 0/70C	12/76 I	VIS INS S&F EM	025C 070C	N.R.	4376		0		
			I	THRMSHK	000C 100C	N.R.	4376		0		
			I	15CY		MS-883	4376		0		
			I	REVBIA	125C	1011 A	4376	7.35E 05	0		
			I	S&F EM	070C	N.R.	4376		0		
			I			N.R.	4376		20:MFEF 858/2,		
									859/1, 860/6		
									861/8, 862/1		
VARIOUS 74193	DIP 16	N 0/70C	10/76 I	VIS INS S&F EM	025C 070C	N.R.	1200		0		
			I	THRMSHK	000C 100C	N.R.	1200		0		
			I	15CY		MS-883	1200		0		
			I	REVBIA	125C	1011 A	1200	2.02E 05	0		
			I	S&F EM	070C	N.R.	1200		0		
			I			N.R.	1200		11:MFEF 863/1,		
									864/8		

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURFR	PKG /	SCP CL /	DATE /	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TMP RRG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
VARIOUS	DIP	N	03/76	VIS INS			60.		0:	
74297	14	0/70C	I			N.R.			0:	
				S&F FM	025C 070C		60:		0:	
			I			N.R.			0:	
				THRMSHK	000C 100C	MS-883	60:		0:	
			I		15CY	1011 A			0:	
				REVBIA	125C		60:	1.08E 04	0:	
			I			N.R.				
				S&F FM	070C		60:		3:MFEF 865/3	
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			100:		0:	
74297	14	0/70C	I			N.R.			0:	
				S&F FM	025C 070C		100:		0:	
			I			N.R.			0:	
				TPRMSHK	000C 100C	MS-883	100:		0:	
			I		15CY	1011 A			0:	
				REVBIA	125C		100:	1.68E 04	0:	
			I			N.R.				
				S&F FM	070C		100:		4:MFEF 866/4	
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			500:		0:	
74297	14	0/70C	I			N.R.			0:	
				S&F FM	025C 070C		500:		0:	
			I			N.R.			0:	
				THRMSHK	000C 100C	MS-883	500:		0:	
			I		15CY	1011 A			0:	
				RFVBIA	125C		500:	8.40E 04	0:	
			I			N.R.				
				S&F FM	070C		500:		13:MFEF 867/2,	
			I			N.R.			868/10	
VARIOUS	DIP	N	10/76	VIS INS			500:		0:	
74297	14	0/70C	I			N.R.			0:	
				S&F FM	025C 070C		500:		0:	
			I			N.R.			0:	
				THRMSHK	000C 100C	MS-883	500:		0:	
			I		15CY	1011 A			0:	
				REVBIA	125C		500:	8.40E 04	0:	
			I			N.R.				
				S&F FM	070C		500:		2:MFEF 869/2	
			I			N.R.				
VARIOUS	DIP	N	04/76	VIS INS			59:		0:	
7490	14	0/70C	I			N.R.			0:	
				S&F FM	025C 070C		59:		0:	
			I			N.R.			0:	
				THRMSHK	000C 100C	MS-883	59:		0:	
			I		15CY	1011 A			0:	
				PFVBIA	125C		59:	9.91E 03	0:	
			I			N.R.				
				S&F FM	070C		59:		1:MFEF 870/1	
			I			N.P.				
VARIOUS	DIP	N	04/76	VIS INS			199:		0:	
7490	14	0/70C	I			N.P.			0:	
				S&F FM	025C 070C		199:		0:	
			I			N.R.			0:	
				THRMSHK	000C 100C	MS-883	199:		0:	
			I		15CY	1011 A			0:	
				REVBIA	125C		199:	3.34E 04	0:	
			I			N.R.				
				S&F FM	070C		199:		1:MFEF 871/1	
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			200:		0:	
7490	14	0/70C	I			N.R.			0:	
				S&F FM	025C 070C		200:		0:	
			I			N.R.			0:	
				THRMSHK	000C 100C	MS-883	200:		0:	
			I		15CY	1011 A			0:	
				REVBIA	125C		200:	3.36E 04	0:	
			I			N.P.				
				S&F FM	070C		200:		0:	
			I			N.R.				

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCF. CL/ TEMP REG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPFC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 7490	DIP 14	N 0/70C	06/76	VIS INS			250:		0:	
			I	S&F EM	025C 070C	N.R.	250:		0:	
			I	THRMSHK	000C 100C	MS-883	250:		0:	
			I	15CY		1011 A	250:		0:	
			I	REVBIA	125C		250:	4.20E 04	0:	
			I	S&F EM	070C	N.R.	250:		3:MFEF 872/3	
			I			N.R.				
VARIOUS 7490	DIP 14	N 0/70C	10/76	VIS INS			300:		0:	
			I	S&F FM	025C 070C	N.R.	300:		0:	
			I	THRMSHK	000C 100C	MS-883	300:		0:	
			I	15CY		1011 A	300:		0:	
			I	REVBIA	125C		300:	5.04E 04	0:	
			I	S&F EM	070C	N.R.	300:		2:MFEF 873/1, 874/1	
			I			N.R.				
VARIOUS 7490	DIP 14	N 0/70C	12/76	VIS INS			200:		0:	
			I	S&F FM	025C 070C	N.R.	200:		0:	
			I	THRMSHK	000C 100C	MS-883	200:		0:	
			I	15CY		1011 A	200:		0:	
			I	REVBIA	125C		200:	3.36E 04	0:	
			I	S&F FM	070C	N.R.	200:		0:	
			I			N.R.				
VARIOUS 7492	DIP 14	N 0/70C	12/76	VIS INS			578:		0:	
			I	S&F FM	025C 070C	N.R.	578:		0:	
			I	THRMSHK	000C 100C	MS-883	578:		0:	
			I	15CY		1011 A	578:		0:	
			I	REVBIA	125C		578:	9.71E 04	0:	
			I	S&F EM	070C	N.R.	578:		10:MFEF 875/6, 876/1, 877/3	
			I			N.R.				
VARIOUS 7492	DIP 14	N 0/70C	06/76	VIS INS			200:		0:	
			I	S&F EM	025C 070C	N.R.	200:		0:	
			I	THRMSHK	000C 100C	MS-883	200:		0:	
			I	15CY		1011 A	200:		0:	
			I	REVBIA	125C		200:	3.36E 04	0:	
			I	S&F EM	070C	N.R.	200:		2:MFEF 878/2	
			I			N.R.				
VARIOUS 7492	DIP 14	N 0/70C	06/76	VIS INS			500:		0:	
			I	S&F EM	025C 070C	N.R.	500:		0:	
			I	THRMSHK	000C 100C	MS-883	500:		0:	
			I	15CY		1011 A	500:		0:	
			I	REVBIA	125C		500:	8.40E 04	0:	
			I	S&F FM	070C	N.R.	500:		4:MFEF 879/1, 880/3	
			I			N.R.				
VARIOUS 7492	DIP 14	N 0/70C	07/76	VIS INS			500:		0:	
			I	S&F FM	025C 070C	N.R.	500:		0:	
			I	THRMSHK	000C 100C	MS-883	500:		0:	
			I	15CY		1011 A	500:		0:	
			I	REVBIA	125C		500:	8.40E 04	0:	
			I	S&F FM	070C	N.R.	500:		7:MFEF 881/7	
			I			N.R.				

COUNTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPFC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 7492	DIP : N 14 : 0/70C	08/76	VIS INS	I	S&F EM : 025C 070C	N.R.	500:	0:		
				I	S&F EM : 025C 070C	N.R.	500:	0:		
				I	THRMSHK : 000C 100C	MS-883	500:	0:		
				I	15CY	1011 A	500:	8.40E 04	0:	
				I	REVBIAIS : 125C	N.R.	500:			
				I	S&F FM : 070C	N.R.	500:		11:MFEF 882/11	
				I		N.R.				
VARIOUS 7493	DIP : N.P. 14 : 0/70C	11/75	SDF EM : 025C	I		N.R.	557:	6:		
				I	THRMSHK : 000C 100C	N.R.	551:	0:		
				I	15CY	N.R.	551:	9.26E 04	0:	
				I	REVBIAIS : 100C	N.R.	551:			
				I	SDF FM : 025C	N.R.	551:	2:		
				I		N.R.				
VARIOUS 7493	DIP : N 14 : 0/70C	03/76	VIS INS	I	S&F EM : 025C 070C	N.R.	1004:	0:		
				I	S&F EM : 025C 070C	N.R.	1004:	0:		
				I	THRMSHK : 000C 100C	MS-883	1004:	0:		
				I	15CY	1011 A	1004:			
				I	REVBIAIS : 125C	N.R.	1004:	1.69E 05	0:	
				I	S&F FM : 070C	N.R.	1004:	4:MFEF 883/2, 884/2		
				I		N.R.				
VARIOUS 7493	DIP : N 14 : 0/70C	04/76	VIS INS	I	S&F EM : 025C 070C	N.R.	3000:	0:		
				I	S&F EM : 025C 070C	N.R.	3000:	0:		
				I	THRMSHK : 000C 100C	MS-883	3000:	0:		
				I	15CY	1011 A	3000:	5.04E 05	0:	
				I	REVBIAIS : 125C	N.R.	3000:			
				I	S&F EM : 070C	N.R.	3000:	3:MFEF 885/2		
				I		N.R.				
VARIOUS 7493	DIP : N 14 : 0/70C	07/76	VIS INS	I	S&F EM : 025C 070C	N.R.	2650:	0:		
				I	S&F EM : 025C 070C	N.R.	2650:	0:		
				I	THRMSHK : 000C 100C	MS-883	2650:	0:		
				I	15CY	1011 A	2650:	4.45E 05	0:	
				I	REVBIAIS : 125C	N.R.	2650:			
				I	S&F EM : 070C	N.R.	2650:	5:MFEF 886/1, 887/2, 888/4		
				I		N.R.				
VARIOUS 7493	DIP : N 14 : 0/70C	07/76	VIS INS	I	S&F FM : 025C 070C	N.R.	3350:	0:		
				I	S&F FM : 025C 070C	N.R.	3350:	0:		
				I	THRMSHK : 000C 100C	MS-883	3350:	0:		
				I	15CY	1011 A	3350:	5.63E 05	0:	
				I	REVBIAIS : 125C	N.R.	3350:			
				I	S&F EM : 070C	N.R.	3350:	36:MFEF 889/1, 890/7, 891/28		
				I		N.R.				
VARIOUS 7493	DIP : N 14 : 0/70C	10/76	VIS INS	I	S&F FM : 025C 070C	N.R.	99:	0:		
				I	S&F FM : 025C 070C	N.R.	99:	0:		
				I	THRMSHK : 000C 100C	MS-883	99:	0:		
				I	15CY	1011 A	99:	1.66E 04	0:	
				I	REVBIAIS : 125C	N.R.	99:			
				I	S&F FM : 070C	N.R.	99:	0:		
				I		N.R.				

COUNTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TEMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
VARIOUS 7493	DIP 14	N 0/70C	11/76	VIS INS			202		0	
			I	S&F EM	025C 070C	N.R.	202		0	
			I	THRMSHK	000C 100C	N.R.	202		0	
			I	15CY		MS-883	202		0	
			I	RFVBIAS	125C	1011 A	202	3.39E 04	0	
			I	S&F FM	070C	N.R.	202		0	
			I			N.R.	202		0	3:MFEF 892/3
VARIOUS 7493	DIP 14	N 0/70C	12/76	VIS INS			3000		0	
			I	S&F FM	025C 070C	N.R.	3000		0	
			I	THRMSHK	000C 100C	N.R.	3000		0	
			I	15CY		MS-883	3000		0	
			I	RFVBIAS	125C	1011 A	3000	5.04E 05	0	
			I	S&F EM	070C	N.R.	3000		0	
			I			N.R.	3000		0	17:MFEF 893/4, 894/8,895/5
VARIOUS 7493	DIP 14	N 0/70C	12/76	VIS INS			2800		0	
			I	S&F FM	025C 070C	N.R.	2800		0	
			I	THRMSHK	000C 100C	N.R.	2800		0	
			I	15CY		MS-883	2800		0	
			I	RFVBIAS	125C	1011 A	2800	4.70E 05	0	
			I	S&F FM	070C	N.R.	2800		0	
			I			N.R.	2800		0	6:MFEF 896/6
VARIOUS 7493	DIP 14	N 0/70C	02/76	VIS INS			1697		0	
			I	S&F EM	025C 070C	N.R.	1697		0	
			I	THRMSHK	000C 100C	N.R.	1697		0	
			I	15CY		MS-883	1697		0	
			I	RFVBIAS	125C	1011 A	1697	2.85E 05	0	
			I	S&F EM	070C	N.R.	1697		0	
			I			N.R.	1697		0	8:MFEF 897/8
VARIOUS 7493	DIP 14	N 0/70C	05/76	VIS INS			8461		0	
			I	S&F EM	025C 070C	N.R.	8461		0	
			I	THRMSHK	000C 100C	N.R.	8461		0	
			I	15CY		MS-883	8461		0	
			I	RFVBIAS	125C	1011 A	8461	1.42E 06	0	
			I	S&F EM	070C	N.R.	8461		0	
			I			N.R.	8461		0	27:MFEF 898/6, 899/1,900/1, 901-905/19
VARIOUS 7493	DIP 14	N 0/70C	09/76	VIS INS			985		0	
			I	S&F EM	025C 070C	N.R.	985		0	
			I	THRMSHK	000C 100C	N.R.	985		0	
			I	15CY		MS-883	985		0	
			I	RFVBIAS	125C	1011 A	985	1.65E 05	0	
			I	S&F FM	070C	N.R.	985		0	
			I			N.R.	985		0	25:MFEF 906/1, 907/1,908/10
VARIOUS 7493	DIP 14	N 0/70C	10/76	VIS INS			63		0	
			I	S&F EM	025C 070C	N.R.	63		0	
			I	THRMSHK	000C 100C	N.R.	63		0	
			I	15CY		MS-883	63		0	
			I	RFVBIAS	125C	1011 A	63	1.06E 04	0	
			I	S&F FM	070C	N.R.	63		0	
			I			N.R.	63		0	7:MFEF 909/5, 910/2

COUNTER				ENVIRONMENTAL BURN-IN				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TEMP RRG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	F D	SUMMARY	#
VARIOUS	DIP	N	11/76	VIS INS			118:		0:		
7493	14	0/70C	I	S&F FM	025C 070C	N.R.	118:		0:		
			I	THRMSHK	000C 100C	MS-883	118:		0:		
			I	15CY		1011 A	118:	1.98E 04	0:		
			I	REVBIA	125C		118:		0:		
			I	S&F FM	070C	N.R.	118:		8:M EF 911/1		
			I			N.R.					

COUNTER				ENVIRONMENTAL BURN-IN				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY MOS				OPERATIONAL TYPE CMOS							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TEMP RRG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	F D	SUMMARY	#
RCA	E-DIP	N	05/76	VIS INS			50:		0:		
4017A	16	-40/80C	I	S&F EM	025C 070C	N.R.	50:		0:		
			I	THRMSHK	000C 100C	MS-883	50:		0:		
			I	15CY		1011 A	50:		0:		
			I	REVBIA	125C		50:	8.40E 03	0:		
			I	S&F EM	070C	N.R.	50:		4:MFEF 912/1,		
			I			N.R.			913/3		
			I								

DECODER				ENVIRONMENTAL BURN-IN				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE LOW POWER TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TEMP RRG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	F D	SUMMARY	#
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		21:		0:		
74L42	16	0/70C	I	THRMSHK	000C 100C	N.R.	21:		0:		
			I	5CYC		N.R.	21:		0:		
			I	REVBIA	100C		21:	3.53E 03	0:		
			I	SDF EM	025C	N.R.	21:		0:		
			I			N.R.					
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		7309:		285:		
74L42	16	0/70C	I	THRMSHK	000C 100C	N.R.	7024:		0:		
			I	5CYC		N.R.	7024:	1.18F 06	0:		
			I	REVBIA	100C		7024:		68:		
			I	SDF FM	025C	N.R.	7024:				
			I			N.R.					

DECODER				ENVIRONMENTAL BURN-IN				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE LS TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TEMP RRG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	F D	SUMMARY	#
VARIOUS	DIP	N	08/76	VIS INS			455:		0:		
74LS42	16	0/70C	I	S&F EM	025C 070C	N.R.	455:		0:		
			I	THRMSHK	000C 100C	MS-883	455:		0:		
			I	15CY		1011 A	455:		0:		
			I	REVBIA	125C		455:	7.64F 04	0:		
			I	S&F FM	070C	N.R.	455:		0:		
			I			N.R.					

DECODER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY			BIPOLAR			OPERATIONAL TYPE			TTL		
MANUFACTURER	PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
MOTOROLA	4006	DIP 14	N 0/70C	02/76	VIS INS			2080:		0:	
				I	S&F EM	025C 070C	N.R.	2080:		0:	
				I	TEMPCYC	-055C 125C	MS-883	2080:		0:	
				I	5CY	1010 B		2080:		0:	
				I	REVBIA	125C		2080:	3.49E 05	0:	
				I	S&F EM	070C	N.R.	2080:		375:MFEF 914/375	
				I			N.R.				
VARIOUS	7442	DIP 16	N.R. 0/70C	11/75	SDF EM	025C		3359:		21:	
				I	THRMSHK	000C 100C	N.R.	3338:		0:	
				I	5CYC		N.R.	3338:	5.61E 05	0:	
				I	REVBIA	100C		3338:		0:	
				I	SDF EM	025C	N.R.	3338:		6:	
				I			N.R.				
VARIOUS	7442	DIP 16	N /70C	04/76	VIS INS			4120:		0:	
				I	S&F EM	025C 070C	N.R.	4120:		0:	
				I	THRMSHK	000C 100C	MS-883	4120:		0:	
				I	15CY		1011 A	4120:		0:	
				I	REVBIA	125C		4120:	6.92E 05	0:	
				I	S&F EM	070C	N.R.	4120:		55:MFEF 915/1, 916/2, 917/22:	
				I			N.R.				
VARIOUS	7442	DIP 16	N 0/70C	10/76	VIS INS			1576:		0:	
				I	S&F EM	025C 070C	N.R.	1576:		0:	
				I	THRMSHK	000C 100C	MS-883	1576:		0:	
				I	15CY		1011 A	1576:		0:	
				I	REVBIA	125C		1576:	2.65E 05	0:	
				I	S&F EM	070C	N.R.	1576:		18:MFEF 920/10, 921/2, 922/2	
				I			N.R.				
VARIOUS	7442	DIP 16	N 0/70C	11/76	VIS INS			100:		0:	
				I	S&F EM	025C 070C	N.R.	100:		0:	
				I	THRMSHK	000C 100C	MS-883	100:		0:	
				I	15CY		1011 A	100:		0:	
				I	REVBIA	125C		100:	1.68E 04	0:	
				I	S&F EM	070C	N.R.	100:		0:	
				I			N.R.				
VARIOUS	7442	DIP 16	N 0/70C	12/76	VIS INS			1000:		0:	
				I	S&F EM	025C 070C	N.R.	1000:		0:	
				I	THRMSHK	000C 100C	MS-883	1000:		0:	
				I	15CY		1011 A	1000:		0:	
				I	REVBIA	125C		1000:	1.68E 05	0:	
				I	S&F EM	070C	N.R.	1000:		13:MFEF 916/1, 919/12	
				I			N.R.				
VARIOUS	7442	DIP 16	N 0/70C	12/76	VIS INS			800:		0:	
				I	S&F EM	025C 070C	N.R.	800:		0:	
				I	THRMSHK	000C 100C	MS-883	800:		0:	
				I	15CY		1011 A	800:		0:	
				I	REVBIA	125C		800:	1.34E 05	0:	
				I	S&F EM	070C	N.R.	800:		3:MFEF 923/1	
				I			N.R.				

DECODER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY			BIPOLAR		OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/ P/RT NO	CL/ PINS	DATE/ TMP REG	TEST SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
VARIOUS	7442	DIP 16	N 0/70C	12/76	7S INS			1200:		0:		
				I	SF EM	025C 070C	N.R.	1200:		0:		
				I	THRMSHK	000C 100C	MS-883	1200:		0:		
				I	15CY		1011 A	1200:		0:		
				I	REVBIA	125C		1200:	2.02E 05	0:		
				I	S&F EM	070C	N.R.	1200:		19:MFEF 924/19		
				I			N.R.					
VARIOUS	5307	DIP 16	N 0/70C	05/76	VIS INS			60:		0:		
				I	S&F EM	025C 070C	N.R.	60:		0:		
				I	THRMSHK	000C 100C	MS-883	60:		0:		
				I	15CY		1011 A	60:	2.28E 02	0:		
				I	REVBIA	125C		60:		0:		
				I	S&F EM	070C	N.R.	60:		0:		
				I			N.R.					
VARIOUS	9307	DIP 16	N 0/70C	07/76	VIS INS			159:		0:		
				I	S&F EM	025C 070C	N.R.	159:		0:		
				I	THRMSHK	000C 100C	MS-883	159:		0:		
				I	15CY		1011 A	159:	2.67E 04	0:		
				I	REVBIA	125C		159:		7:MFEF 925/4,		
				I	S&F EM	070C	N.R.	159:		926/3		
				I			N.R.					
VARIOUS	9321	DIP 16	N 0/70C	06/76	VIS INS			5088:		0:		
				I	S&F EM	025C 070C	N.R.	5088:		0:		
				I	THRMSHK	000C 100C	MS-883	5088:		0:		
				I	15CY		1011 A	5088:		0:		
				I	REVBIA	125C		5088:	8.55E 05	0:		
				I	S&F EM	070C	N.R.	5088:		64:MFEF 927/12,		
				I			N.R.			928/52		
				I			N.R.					
VARIOUS	9321	DIP 16	N 0/70C	08/76	VIS INS			1500:		0:		
				I	S&F EM	025C 070C	N.R.	1500:		0:		
				I	THRMSHK	000C 100C	MS-883	1500:		0:		
				I	15CY		1011 A	1500:	2.52E 05	0:		
				I	REVBIA	125C		1500:		8:MFEF 929/4,		
				I	S&F EM	070C	N.R.	1500:		930/4		
				I			N.R.					
VARIOUS	9321	DIP 16	N 0/70C	09/76	VIS INS			2000:		0:		
				I	S&F EM	025C 070C	N.R.	2000:		0:		
				I	THRMSHK	000C 100C	MS-883	2000:		0:		
				I	15CY		1011 A	2000:		0:		
				I	REVBIA	125C		2000:	3.36E 05	0:		
				I	S&F EM	070C	N.R.	2000:		19:MFEF 931/1,		
				I			N.R.			932/16		
				I			N.R.					
VARIOUS	9321	DIP 16	N N.R.	12/76	VIS INS			75:		0:		
				I	S&F EM	025C 070C	N.R.	75:		0:		
				I	TEMPCYC	-055C 125C	MS-883	75:		0:		
				I	15CY		1010 B	75:		0:		
				I	REVBIA	125C		75:	1.40E 04	0:		
				I	S&F EM	070C	N.R.	75:		3:MFEF 933/3		
				I			N.R.					

DECODER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
VARIOUS 9321	DIP 16	N N.R.	12/76 I	VIS INS S&F EM	: :025C 070C	: :N.R.	: :79:	: :	: :0:	: :	:
			I	: :TEMPCYC	: :-055C 125C	: :MS-883	: :79:	: :	: :0:	: :	:
			I	: :5CY	: :1010 B	: :	: :79:	: :1.33E 04	: :0:	: :	:
			I	: :REVBIA	: :125C	: :N.R.	: :79:	: :	: :0:	: :	:
			I	: :S&F EM	: :070C	: :N.R.	: :79:	: :	: :3:MFEF 934/2,	: :935/1	:

DEC-DEMUX

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
T.I. 74S139	E-DIP 16	N.R. 0/70C	01/75 I	TEMPCYC :10CY :REVBIA	:055C 125C : :100C	: :N.R.	: :4320:	: :	: :0:	: :	:
			I	: :EM	: :	: :N.R.	: :4320:	: :	: :6:	: :	:
			I	: :	: :	: :N.R.	: :4320:	: :	: :	: :	:
VARIOUS 74S138	DIP 16	N 0/70C	05/76 I	VIS INS S&F EM	: :025C 070C	: :N.R.	: :400:	: :	: :0:	: :	:
			I	: :THRMSHK	: :000C 100C	: :MS-883	: :400:	: :	: :0:	: :	:
			I	: :15CY	: :1011 A	: :	: :400:	: :6.72E 04	: :0:	: :	:
			I	: :REVBIA	: :125C	: :N.R.	: :400:	: :	: :2:MFEF 936/2	: :	:
			I	: :S&F EM	: :070C	: :N.R.	: :400:	: :	: :	: :	:
VARIOUS 74S138	DIP 16	N 0/70C	07/76 I	VIS INS S&F EM	: :025C 070C	: :N.R.	: :200:	: :	: :0:	: :	:
			I	: :THRMSHK	: :000C 100C	: :MS-883	: :200:	: :	: :0:	: :	:
			I	: :15CY	: :1011 A	: :	: :200:	: :3.36E 04	: :0:	: :	:
			I	: :REVBIA	: :125C	: :N.R.	: :200:	: :	: :18:MFEF 937/18	: :	:
			I	: :S&F EM	: :070C	: :N.R.	: :200:	: :	: :	: :	:
VARIOUS 74S138	DIP 16	N 0/70C	09/76 I	VIS INS S&F EM	: :025C 070C	: :N.R.	: :200:	: :	: :0:	: :	:
			I	: :THRMSHK	: :000C 100C	: :MS-883	: :200:	: :	: :0:	: :	:
			I	: :15CY	: :1011 A	: :	: :200:	: :3.36E 04	: :0:	: :	:
			I	: :REVBIA	: :125C	: :N.R.	: :200:	: :	: :1:MFEF 938/1	: :	:
			I	: :S&F EM	: :070C	: :N.R.	: :200:	: :	: :	: :	:
VARIOUS 74S138	DIP 16	N 0/70C	10/76 I	VIS INS S&F EM	: :025C 070C	: :N.R.	: :200:	: :	: :0:	: :	:
			I	: :THRMSHK	: :000C 100C	: :MS-883	: :200:	: :	: :0:	: :	:
			I	: :15CY	: :1011 A	: :	: :200:	: :3.36E 04	: :0:	: :	:
			I	: :REVBIA	: :125C	: :N.R.	: :200:	: :	: :1:MFEF 939/1	: :	:
			I	: :S&F EM	: :070C	: :N.R.	: :200:	: :	: :	: :	:
VARIOUS 74S138	DIP 16	N 0/70C	10/76 I	VIS INS S&F EM	: :025C 070C	: :N.R.	: :175:	: :	: :0:	: :	:
			I	: :THRMSHK	: :000C 100C	: :MS-883	: :175:	: :	: :0:	: :	:
			I	: :15CY	: :1011 A	: :	: :175:	: :2.94E 04	: :0:	: :	:
			I	: :REVBIA	: :125C	: :N.R.	: :175:	: :	: :2:MFEF 940/1	: :	:
			I	: :S&F EM	: :070C	: :N.R.	: :175:	: :	: :	: :	:

DEC-DEMUX

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	##
VARIOUS	DIP : N		11/76	VIS INS			130:		0:		
74S138	16 : 0/70C		I	S&F EM	025C 070C	N.R.	130:		0:		
			I	THRMSHK	000C 100C	MS-883	130:		0:		
			I	15CY		1011 A	130:	2.18E 04	0:		
			I	REVBIA	125C	N.R.	130:		114:MFEF 941/114		
			I	S&F FM	070C	N.R.	130:				

DEC-DEMUX

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	##
VARIOUS	DIP : N		08/76	VIS INS			849:		0:		
74LS138	16 : 0/70C		I	S&F EM	025C 070C	N.R.	849:		0:		
			I	THRMSHK	000C 100C	MS-883	849:		0:		
			I	15CY		1011 A	849:	1.43E 05	0:		
			I	REVBIA	125C	N.R.	849:		14:MFEF 942/11		
			I	S&F EM	070C	N.R.	849:				
VARIOUS	DIP : N		09/76	VIS INS			300:		0:		
74LS139	16 : 0/70C		I	S&F EM	025C 070C	N.R.	300:		0:		
			I	THRMSHK	000C 100C	MS-883	300:		0:		
			I	15CY		1011 A	300:	5.04E 04	0:		
			I	REVBIA	125C	N.R.	300:		5:MFEF 943/5		
			I	S&F EM	070C	N.R.	300:				

DEC-DEMUX

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	##
VARIOUS	DIP : N.R.		11/75	S&F EM	025C		134:		5:		
74154	24 : 0/70C		I	THRMSHK	000C 100C	N.R.	129:		0:		
			I	15CY		N.P.	129:	2.17E 04	0:		
			I	REVBIA	100C	N.R.	129:		0:		
			I	S&F EM	025C	N.R.	129:		0:		
VARIOUS	DIP : N		05/76	VIS INS			1224:		0:		
74154	24 : 0/70C		I	S&F EM	025C 070C	N.R.	1224:		0:		
			I	THRMSHK	000C 100C	MS-883	1224:		0:		
			I	15CY		1011 A	1224:	2.06E 05	0:		
			I	REVBIA	125C	N.R.	1224:		25:MFEF 944/25		
			I	S&F EM	070C	N.R.	1224:				
VARIOUS	DIP : N		12/76	VIS INS			368:		0:		
74154	24 : 0/70C		I	S&F FM	025C 070C	N.R.	368:		0:		
			I	THRMSHK	000C 100C	MS-883	368:		0:		
			I	15CY		1011 A	368:	6.18E 04	0:		
			I	REVBIA	125C	N.P.	368:		15:MFEF 945/1,		
			I	S&F EM	070C	N.R.	368:		946/14		

DPC-DEMUX

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 74155	DIP 16	N 0/70C	05/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM I	025C 070C 000C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	651: 651: 651: 651: 651: 651:	: : 1.09E 05 : 15:MFEF 947/13, 948/2	0: 0: 0: 0: 0: 0:	: : : : : :
VARIOUS 74155	DIP 16	N 0/70C	07/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM I	025C 070C 000C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	386: 386: 386: 386: 386: 386:	: : 6.48E 04 : 3:MFEF 949/1, 950/2	0: 0: 0: 0: 0: 0:	: : : : : :
VARIOUS 74155	DIP 16	N 0/70C	10/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM I	025C 070C 000C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	246: 246: 246: 246: 246: 246:	: : 4.13E 04 : 1:MFEF 951/1	0: 0: 0: 0: 0: 0:	: : : : : :
VARIOUS 74155	DIP 16	N 0/70C	12/76	VIS INS I S&F EM THRMSHK 15CY PEVBIA S&F EM I	025C 070C 000C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	200: 200: 200: 200: 200: 200:	: : 3.36E 04 : 1:MFEF 952/1	0: 0: 0: 0: 0: 0:	: : : : : :
VARIOUS 74156	DIP 16	N 0/70C	12/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM I	025C 070C 000C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	300: 300: 300: 300: 300: 300:	: : 5.04E 04 : 0:	0: 0: 0: 0: 0: 0:	: : : : : :
VARIOUS 74156	DIP 16	N 0/70C	07/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM I	025C 070C 000C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	131: 131: 131: 131: 131: 131:	: : 2.20E 04 : 2:MFEF 953/2	0: 0: 0: 0: 0: 0:	: : : : : :
VARIOUS 9311	DIP 24	N N.R.	02/76	VIS INS I S&F EM TEMPCYC 15CY REVBIA S&F EM I	025C 070C 125C 125C 070C	N.R. N.R. MS-883 1010 B N.R. N.R.	226: 226: 226: 226: 226: 226:	: : 3.80E 04 : 2:	0: 0: 0: 0: 0: 0:	: : : : : :

DEC-DEMUX

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PFC/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPFC- REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 9311	DIP : N 24	N.R.	06/76	VIS INS			105		0	
			I	S&F EM	025C 070C	N.R.	105		0	
			I	TEMPCYC	-055C 125C	N.R.	105		0	
			I	15CY		MS-883 1010 B	105		0	
			I	REVBias	125C		105	1.76E 04	0	
			I	S&F EM	070C	N.R.	105		1:MFEF 954/1	
			I			N.R.				
VARIOUS 74148	DIP : N 16	0/70C	08/76	VIS INS			50		0	
			I	S&F EM	025C 070C	N.R.	50		0	
			I	THRMSHK	000C 100C	N.R.	50		0	
			I	15CY		MS-883 1011 A	50		0	
			I	REVBias	125C		50	R.40E 03	0	
			I	S&F EM	070C	N.R.	50		1:MFEF 955/1	
			I			N.R.				
VARIOUS 74148	DIP : N 16	0/70C	11/76	VIS INS			155		0	
			I	S&F EM	025C 070C	N.R.	155		0	
			I	THRMSHK	000C 100C	N.P.	155		0	
			I	15CY		MS-883 1011 A	155		0	
			I	REVBias	125C		155	2.50E 04	0	
			I	S&F EM	070C	N.R.	155		2:MFEF 956/2	
			I			N.R.				
VARIOUS 9318	DIP : N 16	0/70C	09/76	VIS INS			75		0	
			I	S&F EM	025C 070C	N.R.	75		0	
			I	THRMSHK	000C 100C	N.R.	75		0	
			I	15CY		MS-883 1011 A	75		0	
			I	REVBias	125C		75	1.26E 04	0	
			I	S&F EM	070C	N.R.	75		0	
			I			N.R.				
VARIOUS 9318	DIP : N 16	0/70C	10/76	VIS INS			275		0	
			I	S&F EM	025C 070C	N.R.	275		0	
			I	THRMSHK	000C 100C	N.R.	275		0	
			I	15CY		MS-883 1011 A	275		0	
			I	REVBias	125C		275	4.62E 04	0	
			I	S&F EM	070C	N.R.	275		0	
			I			N.R.				
VARIOUS 9318	DIP : N 16	0/70C	12/76	VIS INS			150		0	
			I	S&F EM	025C 070C	N.R.	150		0	
			I	THRMSHK	000C 100C	N.R.	150		0	
			I	15CY		MS-883 1011 A	150		0	
			I	REVBias	125C		150	2.52E 04	0	
			I	S&F EM	070C	N.R.	150		1:MFEF 957/1	
			I			N.R.				

EXPANDER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TEMP	RFC	SRC	LEVEL	REF.	TEST	HOURS	FIL	SUMMARY	//
VARIOUS	FPK	C-2	03/76	VIS INS	20X	N.R.	721:		0:		
2102	14	-55/125	U	BAKE	125C	MS-883	721:	1.73E 04	0:		
			U	TEMP CYC	-055C 125C	1008 B	721:		0:		
			U	10CY		MS-883	721:		0:		
			U	CONST ACC		1010 B	721:		0:		
			U	FINE LK	HE 5.E-8	N.R.	721:		2:		
			U	60 MIN		MS-883	719:		0:		
			U	GROSS LK	FLUOR 125C	1014 A	719:				
			U	3X		MS-883	719:		0:		
			U	X-RAY	2EX	1014 C	719:		0:		
			U	EM		MS-883	719:		0:		
			U	REVBIA	125C	2012	719:		0:		
			U	EM		N.R.	431:	7.07E 04	0:		
			U	EM		N.R.	431:		17:		
			U	EM -		N.R.	414:		0:		
			U			N.R.					

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE SCHOTTKY TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TEMP	RFC	SRC	LEVEL	REF.	TEST	HOURS	FIL	SUMMARY	//
VARIOUS	DIP	N	05/76	VIS INS		N.R.	498:		0:		
74S112	16	0/70C	1	S&F EM	025C 070C	N.R.	498:		0:		
			1	THRM SHK	000C 100C	MS-882	498:		0:		
			1	15CY		1011 A	498:	8.37E 04	0:		
			1	REVBIA	125C	N.R.	498:		2:MFEE 958/1.		
			1	S&F EM	070C	N.R.	498:		959/1		
			1								
VARIOUS	DIP	N	06/76	VIS INS		N.R.	119:		0:		
74S112	16	0/70C	1	S&F EM	025C 070C	N.R.	119:		0:		
			1	THRM SHK	000C 100C	MS-883	119:		0:		
			1	15CY		1011 A	119:	2.00E 04	0:		
			1	REVBIA	125C	N.R.	119:		1:MFEE 960/1		
			1	S&F EM	070C	N.R.	119:				
			1								
VARIOUS	DIP	N.R.	11/75	S&F EM	025C	N.R.	1002:		16:		
74S175	16	0/70C	1	THRM SHK	000C 100C	N.R.	986:		0:		
			1	15CY		N.R.	986:	1.66E 05	0:		
			1	REVBIA	100C	N.R.	986:		5:		
			1	S&F EM	025C	N.R.	986:				
			1								
VARIOUS	DIP	N	04/76	VIS INS		N.R.	47:		0:		
74S175	16	0/70C	1	S&F EM	025C 070C	N.R.	47:		0:		
			1	THRM SHK	000C 100C	MS-883	47:		0:		
			1	15CY		1011 A	47:	7.90E 03	0:		
			1	REVBIA	125C	N.R.	47:		1:MFEE 961/1		
			1	S&F EM	070C	N.R.	47:				
			1								

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 74S175	DIP : N 16	: 0/70C	: 05/76	: VIS ISS			: 244:		: 0:	
			: I	: S&F EM	: 025C 070C	: X.R.	: 244:		: 0:	
			: I	: THERMSEK	: 000C 100C	: MS-883	: 244:		: 0:	
			: I	: 15CY		: 1011 A	: 244:		: 0:	
			: I	: REVBIAS	: 125C		: 244:	: 4.10E 04	: 0:	
			: I	: S&F EM	: 070C	: X.R.	: 244:		: 1: MFEF 962/1	
			: I			: X.R.				
VARIOUS 74S175	DIP : N 16	: 0/70C	: 04/76	: VIS ISS			: 150:		: 0:	
			: I	: S&F EM	: 025C 070C	: X.R.	: 150:		: 0:	
			: I	: THERMSEK	: 000C 100C	: MS-883	: 150:		: 0:	
			: I	: 15CY		: 1011 A	: 150:		: 0:	
			: I	: REVBIAS	: 125C		: 150:	: 2.52E 04	: 0:	
			: I	: S&F EM	: 070C	: X.R.	: 150:		: 6: MFEF 963/3.	
			: I			: X.R.			: 964/3	
VARIOUS 74S175	DIP : N 16	: 0/70C	: 12/76	: VIS ISS			: 400:		: 0:	
			: I	: S&F EM	: 025C 070C	: X.R.	: 400:		: 0:	
			: I	: THERMSEK	: 000C 100C	: MS-883	: 400:		: 0:	
			: I	: 15CY		: 1011 A	: 400:		: 0:	
			: I	: REVBIAS	: 125C		: 400:	: 6.72E 04	: 0:	
			: I	: S&F EM	: 070C	: X.R.	: 400:		: 2: MFEF 965/2	
			: I			: X.R.				
VARIOUS 74S74	DIP : N 14	: 0/70C	: 03/76	: VIS ISS			: 175:		: 0:	
			: I	: S&F EM	: 025C 070C	: X.R.	: 175:		: 0:	
			: I	: THERMSEK	: 000C 100C	: MS-883	: 175:		: 0:	
			: I	: 15CY		: 1011 A	: 175:		: 0:	
			: I	: REVBIAS	: 125C		: 175:	: 2.94E 04	: 0:	
			: I	: S&F EM	: 070C	: X.R.	: 175:		: 3: MFEF 966/2	
			: I			: X.R.				
VARIOUS 74S74	DIP : N 14	: 0/70C	: 03/76	: VIS ISS			: 3000:		: 0:	
			: I	: S&F EM	: 025C 070C	: X.R.	: 3000:		: 0:	
			: I	: THERMSEK	: 000C 100C	: MS-883	: 3000:		: 0:	
			: I	: 15CY		: 1011 A	: 3000:		: 0:	
			: I	: REVBIAS	: 125C		: 3000:	: 5.04E 05	: 0:	
			: I	: S&F EM	: 070C	: X.R.	: 3000:		: 37: MFEF 967/7.	
			: I			: X.R.			: 968/16, 969/4	
									: 970/10	
VARIOUS 74S74	DIP : N 14	: 0/70C	: 07/76	: VIS ISS			: 1000:		: 0:	
			: I	: S&F EM	: 025C 070C	: X.R.	: 1000:		: 0:	
			: I	: THERMSEK	: 000C 100C	: MS-883	: 1000:		: 0:	
			: I	: 15CY		: 1011 A	: 1000:		: 0:	
			: I	: REVBIAS	: 125C		: 1000:	: 1.68E 05	: 0:	
			: I	: S&F EM	: 070C	: X.R.	: 1000:		: 7: MFEF 971/2.	
			: I			: X.R.			: 972/5	
VARIOUS 74S74	DIP : N 14	: 0/70C	: 11/76	: VIS ISS			: 723:		: 0:	
			: I	: S&F EM	: 025C 070C	: X.R.	: 723:		: 0:	
			: I	: THERMSEK	: 000C 100C	: MS-883	: 723:		: 0:	
			: I	: 15CY		: 1011 A	: 723:		: 0:	
			: I	: REVBIAS	: 125C		: 723:	: 1.31E 05	: 0:	
			: I	: S&F EM	: 070C	: X.R.	: 723:		: 22: MFEF 973/8	
			: I			: X.R.				

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR			OPERATIONAL TYPE SCHOTTKY TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 74S74	DIP 14	N 0/70C	10/76	VIS INS			48:		0:	
			I	S&F EM	025C 070C	N.R.	48:		0:	
			I	THRMSK	000C 100C	MS-883	48:		0:	
			I	15CY		1011 A	48:		0:	
			I	REVBIA	125C		48:	8.06E 03	0:	
			I	S&F EM	070C	N.R.	48:		0:	
			I			N.R.				
VARIOUS 74S74	DIP 14	N 0/70C	12/76	VIS INS			150:		0:	
			I	S&F EM	025C 070C	N.R.	150:		0:	
			I	THRMSK	000C 100C	MS-883	150:		0:	
			I	15CY		1011 A	150:		0:	
			I	REVBIA	125C		150:	2.52E 04	0:	
			I	S&F EM	070C	N.R.	150:		0:	
			I			N.R.				

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR			OPERATIONAL TYPE LOW POWER TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL 74L74	E-DIP 14	N.R. 0/70C	11/75	SDF EM	025C		15087:		293:	
			I	THRMSK	000C 100C	N.R.	14794:		0:	
			I	5CYC		N.R.	14794:	2.49E 06	0:	
			I	REVBIA	100C		14794:		0:	
			I	SDF EM	025C	N.R.	14794:		29:	
			I			N.R.				
T.I. 74L123	E-DIP 16	N.R. 0/70C	11/75	SDF PM	025C		3175:		69:	
			I	THRMSK	000C 100C	N.R.	3106:		0:	
			I	5CYC		N.R.	3106:	5.22E 05	0:	
			I	REVBIA	100C		3106:		0:	
			I	SDF EM	025C	N.R.	3106:		18:	
			I			N.R.				
T.I. 74L123	E-DIP 16	N.R. 0/70C	11/75	REVBIA	100C		1857:	3.12E 05	0:	
			I	SDF EM	025C	N.R.	1857:		55:	MFEE 974/5
			I			N.R.				
T.I. 74L74	E-DIP 14	N.R. 0/70C	11/75	SDF EM	025C		2410:		20:	
			I	THRMSK	000C 100C	N.R.	2390:		0:	
			I	5CYC		N.R.	2390:	4.02E 05	0:	
			I	REVBIA	100C		2390:		0:	
			I	SDF EM	025C	N.R.	2390:		15:	
			I			N.R.				
VARIOUS 74L73	DIP 14	N.R. 0/70C	11/75	SDF EM	025C		2007:		17:	
			I	THRMSK	000C 100C	N.R.	1989:		0:	
			I	5CYC		N.R.	1989:	3.34E 05	0:	
			I	REVBIA	100C		1989:		1:	
			I	SDF EM	025C	N.R.				
			I			N.R.				
VARIOUS 74L74	DIP 14	N.R. 0/70C	11/75	SDF EM	025C		5001:		75:	
			I	T 1SHK	000C 100C	N.R.	4926:		0:	
			I	5CYC		N.R.	4926:	8.28E 05	0:	
			I	REVBIA	100C		4926:		0:	
			I	SDF EM	025C	N.R.	4926:		14:	
			I			N.R.				

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE HIGH SPEED TTL							
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RNG	TEST SRC	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
MOTOROLA 3061	E-DIP 14	N 0/70C	08/76	VIS INS			35		0		
			I	S&F EM	025C 070C	N.R.	35		0		
			I	THRMSHK	000C 100C	N.R.	35		0		
			I	15CY		MS-883	35		0		
			I	REVBIA	125C	1011 A	35	5.88E 03	0		
			I	S&F EM	070C	N.R.	35		0		
			I			F.R.					
MOTOROLA 3061	E-DIP 14	N 0/70C	09/76	VIS INS			100		0		
			I	S&F EM	025C 070C	N.R.	100		0		
			I	THRMSHK	000C 100C	N.R.	100		0		
			I	15CY		MS-883	100		0		
			I	REVBIA	125C	1011 A	100	1.68E 04	0		
			I	S&F EM	070C	N.R.	100		5		
			I			N.R.					
SIGNETICS 54H103	DIP 14	N -55/125	02/75	VIS INS	30X	MM38510	1541		0		
			Q	BAKE	150C	2010 B	1541	3.70E 04	0		
			Q	TEMPCYC	-065C 150C	MM38510	1541		0		
			Q	10CY		1010 C					
			Q	CNSTACC	30KG 1 AXIS	MM38510	1541		12		
			Q	1 MIN E		2001 E					
			Q	FINE LK	HE 5.E-8	MM38510	1529		0		
			Q	60 MIN		1014 A					
			Q	GROSSLK	FLUOR 125C	MM38510	1529		0		
			Q	3X		1014 C					
			Q	EM	025C	MM38510	1529		0		
			Q	PAR EXC	125C	N.R.					
			Q			MM38510	1529	2.57E 05	0		
			Q	S&D EM	-055C 025C	MM38510	1529		65		
			Q	125C		N.R.					
			Q	VIS INS	3X	MM38510	1464		0		
			Q	20X		2009					
SIGNETICS 54H103	FPK 14	N -55/125	04/75	VIS INS	30X	MM38510	973		0		
			Q	BAKE	150C	2010 B	973	2.34E 04	0		
			Q	TEMPCYC	-065C 150C	MM38510	973		0		
			Q	10CY		1010 C					
			Q	CNSTACC	30KG 1 AXIS	MM38510	973		16		
			Q	1 MIN E		2001 E					
			Q	FINE LK	HF 5.E-8	MM38510	957		5:MFEF 1896/5		
			Q	60 MIN		1014 A					
			Q	GROSSLK	FLUOR 125C	MM38510	952		14:MFEF 1897/14		
			Q	3X		1014 C					
			Q	EM	025C	MM38510	938		0		
			Q	PAR EXC	125C	N.R.					
			Q			MM38510	938	1.58E 05	0		
			Q	S&D EM	-055C 025C	MM38510	938		33		
			Q	125C		N.R.					
			Q	VIS INS	3X	MM38510	905		0		
			Q	20X		2009					
SIGNETICS 8H22	E-DIP 16	N 0/70C	05/76	VIS INS			25		0		
			I	S&F EM	025C 070C	N.R.	25		0		
			I	THRMSHK	000C 100C	N.R.	25		0		
			I	15CY		MS-883	25		0		
			I	REVBIA	125C	1011 A	25	4.20E 03	0		
			I	S&F EM	070C	N.R.	25		0		
			I			N.R.					

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
SIGNETICS 8H22	E-DIP 16	N 0/70C	05/76 I	VIS INS :S&F EM	:025C 070C	N.R.	149:		0:	
			I	:THRMSHK	:000C 100C	MS-883	149:		0:	
			I	:15CY		1011 A	149:		0:	
			I	:REVBIA	:125C	N.R.	149:	2.50E 04	0:	
			I	:S&F EM	:070C	N.R.	149:		5:MFEF 975/5	
			I			N.R.				
VARIOUS 74H102	DIP 14	N 0/70C	06/76 I	VIS INS :S&F EM	:025C 070C	N.R.	1933:		0:	
			I	:THRMSHK	:000C 100C	MS-883	1933:		0:	
			I	:15CY		1011 A	1933:		0:	
			I	:REVBIA	:125C	N.R.	1933:	3.25E 05	0:	
			I	:S&F EM	:070C	N.R.	1933:		63:MFEF 976/3, 977/43,978/1 979/15	
			I			N.R.				
VARIOUS 74H102	DIP 14	N 0/70C	03/76 I	VIS INS :S&F EM	:025C 070C	N.R.	900:		0:	
			I	:THRMSHK	:000C 100C	MS-883	900:		0:	
			I	:15CY		1011 A	900:		0:	
			I	:REVBIA	:125C	N.R.	900:	1.51E 05	0:	
			I	:S&F EM	:070C	N.R.	900:		18:MFEF 980/7, 981/11	
			I			N.R.				
VARIOUS 74H72	DIP 14	N 0/70C	05/76 I	VIS INS :S&F EM	:025C 070C	N.R.	25:		0:	
			I	:THRMSHK	:000C 100C	MS-883	25:		0:	
			I	:15CY		1011 A	25:		0:	
			I	:REVBIA	:125C	N.R.	25:	4.20E 03	0:	
			I	:S&F EM	:070C	N.R.	25:		1:MFEF 982/1	
			I			N.R.				
VARIOUS 74H76	DIP 16	N.R. 0/70C	11/75 I	SDF EM :THRMSHK	:025C 100C	N.R.	1060:		27:	
			I	:15CY		N.R.	1033:		0:	
			I	:REVBIA	:100C	N.R.	1033:	1.74E 05	0:	
			I	:SDF EM	:025C	N.R.	1033:		5:	
			I			N.R.				
VARIOUS 74H76	DIP 16	N 0/70C	06/76 I	VIS INS :S&F EM	:025C 070C	N.R.	25:		0:	
			I	:THRMSHK	:000C 100C	MS-883	25:		0:	
			I	:15CY		1011 A	25:		0:	
			I	:REVBIA	:125C	N.R.	25:	4.20E 03	0:	
			I	:S&F EM	:070C	N.R.	25:		0:	
			I			N.R.				

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
SIGNETICS 74LS74	E-DIP 14	N.R. 0/70C	11/75 I	SDF EM :THRMSHK	:025C 100C	N.R.	5348:		15:	
			I	:15CY		N.R.	5333:		0:	
			I	:REVBIA	:100C	N.R.	5333:	8.96E 05	0:	
			I	:SDF EM	:025C	N.R.	5333:		12:	
			I			N.R.				

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LS TTL

MANUFACTURER	PKG/ PART NO	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
SIGNETICS	74LS76	E-DIP :N.R. 16 :0/70C	:11/75	:SDF EM	:025C	:N.R.	:3663:	:225:			
				:THRMSHK	:000C 100C	:N.R.	:3438:	:0:			
				:5CYC		:N.R.	:3438:	:5.78E 05	:0:		
				:REVBias	:100C	:N.R.	:3438:	:47:			
				:SDF EM	:025C	:N.R.	:3438:	:85:			
T.I.	74LS174	E-DIP :N.R. 16 :0/70C	:11/75	:SDF EM	:025C	:N.R.	:1513:	:0:			
				:THRMSHK	:000C 100C	:N.R.	:1428:	:0:			
				:5CYC		:N.R.	:1428:	:2.40E 05	:0:		
				:REVBias	:100C	:N.R.	:1428:	:19:			
				:SDF EM	:025C	:N.R.	:1428:	:246:			
T.I.	74LS175	E-DIP :N.R. 16 :0/70C	:11/75	:SDF EM	:025C	:N.R.	:12403:	:0:			
				:THRMSHK	:000C 100C	:N.R.	:12157:	:0:			
				:5CYC		:N.R.	:12157:	:2.04E 06	:0:		
				:REVBias	:100C	:N.R.	:12157:	:51:			
				:SDF FM	:025C	:N.R.	:12157:				
T.I.	74LS74	F-DIP :N.R. 14 :0/70C	:11/75	:SDF EM	:025C	:N.R.	:2920:	:55:			
				:THRMSHK	:000C 100C	:N.R.	:2865:	:0:			
				:5CYC		:N.R.	:2865:	:4.81E 05	:0:		
				:REVBias	:100C	:N.R.	:2865:	:2:			
				:SDF EM	:025C	:N.R.	:2865:				
T.I.	74LS76	E-DIP :N.P. 16 :0/70C	:11/75	:SDF EM	:025C	:N.R.	:2153:	:85:			
				:THRMSHK	:000C 100C	:N.R.	:2068:	:0:			
				:5CYC		:N.R.	:2068:	:3.47E 05	:0:		
				:REVBias	:100C	:N.R.	:2068:	:12:			
				:SDF EM	:025C	:N.R.	:2068:				
VARIOUS	74LS112	DIP :N 16 :0/70C	:09/76	:VIS INS		:N.R.	:1000:	:0:			
				:S&F EM	:025C 070C	:N.R.	:1000:	:0:			
				:THRMSHK	:000C 100C	:MS-883	:1011 A	:0:			
				:15CY		:N.R.	:1011 A	:1.68E 05	:0:		
				:REVBias	:125C	:N.R.	:1000:	:9:MFEF 983/1, 984/8			
				:S&F FM	:070C	:N.R.	:1000:				
VARIOUS	74LS112	DIP :N 16 :0/70C	:09/76	:VIS INS		:N.R.	:550:	:0:			
				:S&F EM	:025C 070C	:N.R.	:550:	:0:			
				:THRMSHK	:000C 100C	:MS-883	:550:	:0:			
				:15CY		:1011 A	:550:	:9.24E 04	:0:		
				:REVBias	:125C	:N.R.	:550:	:31:MFEF 985/31			
				:S&F EM	:070C	:N.R.	:550:				
VARIOUS	74LS123	DIP :N 16 :0/70C	:09/76	:VIS INS		:N.R.	:235:	:0:			
				:S&F EM	:025C 070C	:N.R.	:235:	:0:			
				:THRMSHK	:000C 100C	:MS-883	:235:	:0:			
				:15CY		:1011 A	:235:	:3.95E 04	:0:		
				:REVBias	:125C	:N.R.	:235:				
				:S&F FM	:070C	:N.R.	:235:	:4:			

FLIP FIOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR			OPERATIONAL TYPE LS TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
VARIOUS 74LS123	DIP : N 16 : 0/70C		09/76	VIS INS		N.R.	1125:		0:	
			I	S&F FM	025C 070C	N.R.	1125:		0:	
			I	THRMSHK	000C 100C	MS-883	1125:		0:	
			I	15CY		1011 A	1125:		0:	
			I	REVBIA	125C		1125:	1.89E 05	0:	
			I	S&F EM	070C	N.R.	1125:		2:MFEF 986/2	
			I			N.R.				
							463:		0:	
VARIOUS 74LS123	DIP : N 16 : 0/70C		09/76	VIS INS		N.R.	463:		0:	
			I	S&F EM	025C 070C	N.R.	463:		0:	
			I	THRMSHK	000C 100C	MS-883	463:		0:	
			I	15CY		1011 A	463:	7.78E 04	0:	
			I	REVBIA	125C		463:		5:MFEF 987/5	
			I	S&F EM	070C	N.R.	463:			
			I			N.R.				
							359:		0:	
VARIOUS 74LS123	DIP : N 16 : 0/70C		12/76	VIS INS		N.R.	359:		0:	
			I	S&F EM	025C 070C	N.R.	359:		0:	
			I	THRMSHK	000C 100C	MS-883	359:		0:	
			I	15CY		1011 A	359:	6.03E 04	0:	
			I	REVBIA	125C		359:		2:MFEF 988/2	
			I	S&F EM	070C	N.R.	359:			
			I			N.R.				
							675:		0:	
VARIOUS 74LS174	DIP : N 16 : 0/70C		09/76	VIS INS		N.R.	675:		0:	
			I	S&F EM	025C 070C	N.R.	675:		0:	
			I	THRMSHK	000C 100C	MS-883	675:		0:	
			I	15CY		1011 A	675:	1.13E 05	0:	
			I	REVBIA	125C		675:		1:MFEF 989/1	
			I	S&F EM	070C	N.R.	675:			
			I			N.R.				
							6896:		198:	
VARIOUS 74LS175	DIP : N.R. 16 : 0/70C		11/75	SDF EM	025C	N.R.	6896:		0:	
			I	THRMSHK	000C 100C	N.R.	6698:		0:	
			I	5CYC		N.R.	6698:		0:	
			I	REVBIA	100C		6698:		23:	
			I	SDF EM	025C	N.R.	6698:			
			I			N.R.				
							1350:		0:	
VARIOUS 74LS175	DIP : N 16 : 0/70C		09/76	VIS INS		N.R.	1350:		0:	
			I	S&F EM	025C 070C	N.R.	1350:		0:	
			I	THRMSHK	000C 100C	MS-883	1350:		0:	
			I	15CY		1011 A	1350:	2.27E 05	0:	
			I	REVBIA	125C		1350:		10:MFEF 990/10	
			I	S&F EM	070C	N.R.	1350:			
			I			N.R.				
							1000:		0:	
VARIOUS 74LS175	DIP : N 16 : 0/70C		10/76	VIS INS		N.R.	1000:		0:	
			I	S&F EM	025C 070C	N.R.	1000:		0:	
			I	THRMSHK	000C 100C	MS-883	1000:		0:	
			I	15CY		1011 A	1000:	1.68E 05	0:	
			I	REVBIA	125C		1000:		0:	
			I	S&F FM	070C	N.R.	1000:		0:	
			I			N.R.				

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPF	STRFSS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	1/
VARIOUS 74LS21	DIP 16	N 0/70C	09/76	VIS INS I			449:		0:		
				S&F EM	025C 070C	N.R.	449:		0:		
				THRMSHK	000C 100C	MS-883	449:		0:		
				15CY		1011 A					
				REVBIA	125C		449:	7.54E 04	0:		
				S&F EM	070C	N.R.	449:		4:MFEF 991/4		
				I		N.R.					
VARIOUS 74LS273	DIP 20	N 0/70C	10/76	VIS INS I			220:		0:		
				S&F EM	025C 070C	N.R.	220:		0:		
				THRMSHK	000C 100C	MS-883	220:		0:		
				15CY		1011 A					
				REVBIA	125C		220:	3.70E 04	0:		
				S&F EM	070C	N.R.	220:		1:MFEF 992/1		
				I		N.R.					
VARIOUS 74LS273	DIP 20	N 0/70C	12/76	VIS INS I			743:		0:		
				S&F EM	025C 070C	N.R.	743:		0:		
				THRMSHK	000C 100C	MS-883	743:		0:		
				15CY		1011 A					
				REVBIA	125C		743:	1.25E 05	0:		
				S&F EM	070C	N.R.	743:		2:MFEF 993/1		
				I		N.R.					
VARIOUS 74LS73	DIP 14	N 0/70C	02/76	VIS INS I			100:		0:		
				S&F EM	025C 070C	N.R.	100:		0:		
				THRMSHK	000C 100C	MS-883	100:		0:		
				15CY		1011 A					
				REVBIA	125C		100:	1.68E 04	0:		
				S&F EM	070C	N.R.	100:		7:MFEF 994/6, 995/1		
				I		N.R.					
VARIOUS 74LS73	DIP 14	N 0/70C	06/76	VIS INS I			100:		0:		
				S&F EM	025C 070C	N.R.	100:		0:		
				THRMSHK	000C 100C	MS-883	100:		0:		
				15CY		1011 A					
				REVBIA	125C		100:	1.68E 04	0:		
				S&F EM	070C	N.R.	100:		7:MFEF 996/1, 997/6		
				I		N.R.					
VARIOUS 74LS74	DIP 14	N 0/70C	09/76	VIS INS I			2411:		0:		
				S&F EM	025C 070C	N.R.	2411:		0:		
				THRMSHK	000C 100C	MS-883	2411:		0:		
				15CY		1011 A					
				REVBIA	125C		2411:	4.05E 05	0:		
				S&F EM	070C	N.R.	2411:		17:MFEF 998/17		
				I		N.R.					
VARIOUS 74LS74	DIP 14	N 0/70C	09/76	VIS INS I			997:		0:		
				S&F EM	025C 070C	N.R.	997:		0:		
				THRMSHK	000C 100C	MS-883	997:		0:		
				15CY		1011 A					
				REVBIA	125C		997:	1.67E 05	0:		
				S&F EM	070C	N.R.	997:		17:MFEF 999/17		
				I		N.R.					

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMAR	/#
ADV MICRO DEV 2600	DIP 16	N N.R.	10/76	VIS INS			30:		0:		
				S&F EM	025C 070C	N.R.	30:		0:		
				TEMPCYC	-055C 125C	MS-883	30:		0:		
				5CY		1010 B					
				REVBIA	125C		30:	5.04E 03	0:		
				S&F EM	070C	N.R.	30:		2:MFEF 1005/2		
						N.R.					
ADV MICRO DEV 2600	E-DIP 16	N 0/70C	12/76	VIS INS			100:		0:		
				S&F EM	025C 070C	N.R.	100:		0:		
				THRMSHK	000C 100C	MS-883	100:		0:		
				15CY		1011 A					
				REVBIA	125C		100:		0:		
				S&F EM	070C	N.R.	100:		2:MFEF 1006/1		
						N.R.					
ADV MICRO DEV 26123	E-DIP 16	N 0/70C	05/76	VIS INS			998:		0:		
				S&F EM	025C 070C	N.R.	998:		0:		
				THRMSHK	000C 100C	MS-883	998:		0:		
				15CY		1011 A					
				REVBIA	125C		998:	1.68E 05	0:		
				S&F EM	070C	N.R.	998:		3:MFEF 1007/2, 1008/1		
						N.R.					
ADV MICRO DEV 26123	E-DIP 16	N 0/70C	12/76	VIS INS			797:		0:		
				S&F EM	025C 070C	N.R.	797:		0:		
				THRMSHK	000C 100C	MS-883	797:		0:		
				15CY		1011 A					
				REVBIA	125C		797:	1.34E 05	0:		
				S&F EM	070C	N.R.	797:		7:MFEF 1009/4		
						N.R.					
ADV MICRO DEV 9602	E-DIP 16	N.R. 0/70C	11/75	SDF EM	025C		7000:		30:		
				THRMSHK	000C 100C	N.R.	6970:		0:		
				5CYC		N.R.					
				REVBIA	100C		6970:	1.17E 06	0:		
				SDF EM	025C	N.R.	6970:		0:		
						N.R.					
ADV MICRO DEV 9602	E-DIP 16	N.R. 0/70C	11/75	REVBIA	100C		15000:	2.52E 06	0:		
				SDF FM	025C	N.R.	15000:		57:		
						N.R.					
ITT 54121	DIP 14	N.R. -55/125	01/75	TEMPCYC	-055C 125C		968:		0:		
				10CY		N.R.					
				REVBIA	100C		968:	2.32E 04	0:		
						N.R.					
				FM		N.R.	968:		10:		
						N.R.					
MOTOROLA 4024	E-DIP 14	N 0/70C	05/76	VIS INS			999:		0:		
				S&F EM	025C 070C	N.R.	999:		0:		
				THRMSHK	000C 100C	MS-883	999:		0:		
				15CY		1011 A					
				REVBIA	125C		999:	1.68E 05	0:		
				S&F EM	070C	N.R.	999:		1:MFEF 1010/1		
						N.R.					

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP ENG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	7#
RAYTHEON 200	FPK 14	C-2 -55/125	03/76	U	VIS INS	20X	1328:		0:		
				U	BAKE	125C	MS-883 1008 B	1328: 3.19E 04	0:		
				U	TEMPCYC	-055C 125C	MS-883 1010 B	1328:	0:		
				U	CNSTACC			1328:	0:		
				U	FINE LK	HE 5-E-8	MS-883 1014 A	1328:	4:		
				U	GROSSLK	FLUOR 125C	MS-883 1014 C	1324:	5:		
				U	X-RAY	28X	MS-883 2012	1319:	5:		
				U	EM			1314:	0:		
				U	REVBIA	125C	N.R.	785: 1.29E 05	0:		
				U	EM		N.R.	785:	35:		
				U	EM		N.R.	750:	0:		
				U			N.R.				
SIGNETICS 5476	DIP 16	N -55/125	04/75	Q	VIS INS	30X	MM38510 2010 B	356:	0:		
				Q	BAKE	150C	MM38510 1008 C	356: 6.14E 03	0:		
				Q	TEMPCYC	-065C 150C	MM38510 1010 C	356:	0:		
				Q	CNSTACC	30KG 1 AXIS	MM38510 2001 E	356:	6:		
				Q	FINE LK	HE 5-E-8	MM38510 1014 A	350:	1:		
				Q	GROSSLK	FLUOR 125C	MM38510 1014 C	349:	0:		
				Q	EM	025C	MM38510	349:	0:		
				Q	PAR EXC	125C	MM38510 1015 D	349: 5.87E 05	0:		
				Q	S&D EM	-055C 025C	MM38510	349:	13:		
				Q	VIS INS	125C	N.R.				
				Q		20X	MM38510 2009	336:	0:		
SIGNETICS 5476	DIP 16	N -55/125	05/75	Q	VIS INS	30X	MM38510 2010 B	1042:	0:		
				Q	BAKE	150C	MM38510 1008 C	1042:	0:		
				Q	TEMPCYC	-065C 150C	MM38510 1010 C	1042:	0:		
				Q	CNSTACC	30KG 1 AXIS	MM38510 2001 E	1042:	29:		
				Q	FINE LK	HE 5-E-8	MM38510 1014 A	1013:	7:		
				Q	GROSSLK	FLUOR 125C	MM38510 1014 C	1006:		6:MFEF 1898/6	
				Q	EM	025C	MM38510	1000:	0:		
				Q	PAR EXC	125C	MM38510 1015 D	1000: 1.68E 05	0:		
				Q	S&D EM	-055C 025C	MM38510	1000:	25:		
				Q	VIS INS	125C	N.R.				
				Q		3X	MM38510 2009	975:	2:		
SIGNETICS 74121	E-DIP 14	N.R. 0/70C	11/75	I	SDF EM	025C		1397:	16:		
				I	THRMSHK	000C 100C	N.R.	1381:	0:		
				I	5CYC		N.R.				
				I	REVBIA	100C		1381: 2.32E 05	0:		
				I	SDF EM	025C	N.R.	1381:	2:		
				I			N.R.				
SIGNETICS 74123	E-DIP 16	N.R. 0/70C	11/75	I	SDF EM	025C		7152:	94:		
				I	THRMSHK	000C 100C	N.R.	7058:	0:		
				I	5CYC		N.R.				
				I	REVBIA	100C		7058: 1.19E 06	0:		
				I	SDF EM	025C	N.R.	7058:	54:		
				I			N.R.				

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS-CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SIGNETICS 74123	E-DIP 16	N.R. 0/70C	11/75	REVBIA I	100C		625	1.05E 05	0	
				SDF EM	025C	N.R.	625		5	
				I		N.R.				
SIGNETICS 74174	E-DIP 16	N.R. 0/70C	11/75	SDF EM	025C		433		7	
				I		N.R.	426		0	
				THRMSHK	000C	100C				
				I	5CYC	N.R.	426	1.16E 04	0	
				REVBIA	100C					
				I		N.R.	426		2	
				SDF EM	025C	N.R.				
SIGNETICS 7473	E-DIP 14	N.R. 0/70C	11/75	SDF EM	025C		6171		108	
				I		N.R.	6063		0	
				THRMSHK	000C	100C				
				I	5CYC	N.R.	6063	1.02E 06	0	
				REVBIA	100C					
				I		N.R.	6063		20	
				SDF EM	025C	N.R.				
SIGNETICS 7474	E-DIP 14	N.R. 0/70C	11/75	SDF EM	025C		2450		11	
				I		N.R.	2439		0	
				THRMSHK	000C	100C				
				I	5CYC	N.R.	2439	4.10E 05	0	
				REVBIA	100C					
				I		N.R.	2439		9	
				SDF EM	025C	N.F.				
T.I. 74122	E-DIP 14	N.R. 0/70C	11/75	SDF EM	025C		240		0	
				I		N.R.	240		0	
				THRMSHK	000C	100C				
				I	5CYC	N.R.	240		0	
				REVBIA	100C		240		0	
				I		N.R.	240		0	
				SDF EM	025C	N.R.				
T.I. 74174	E-DIP 16	N.R. 0/70C	01/75	TEMPCYC	-055C	125C	15		0	
				I	10CY					
				REVBIA	000C		15	3.60E 02	0	
				I		N.R.				
				EM			15		0	
				I		N.R.				
VARIOUS 74107	DIP 14	N.R. 0/70C	11/75	SDF EM	025C		133		1	
				I		N.R.	132		0	
				THRMSHK	000C	100C				
				I	5CYC	N.R.	132	2.22E 04	0	
				REVBIA	100C					
				I		N.R.	132		1	
				SDF EM	025C	N.R.				
VARIOUS 74107	DIP 14	N 0/70C	07/76	VIS INS			25		0	
				I		N.R.	25		0	
				S&F EM	025C	070C				
				I		N.R.	25		0	
				THRMSHK	000C	100C	MS-883		0	
				I	15CY	1011 A	25	4.20E 03	0	
				REVBIA	125C					
				I		N.R.	25		3:MFEF 1011/1	
				S&F EM	070C					
				I		N.R.				
VARIOUS 74107	DIP 14	N 0/70C	09/76	VIS INS			54		0	
				I		N.R.	54		0	
				S&F EM	025C	070C				
				I		N.R.	54		0	
				THRMSHK	000C	100C	MS-883		0	
				I	15CY	1011 A	54	9.07E 03	0	
				REVBIA	125C					
				I		N.R.	54		0	
				S&F EM	070C					
				I		N.R.				

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 74107	DIP : N 14	: 0/70C	: 12/76	: VIS INS			: 570:		: 0:	
			: I	: S&F EM	: 025C 070C	: N.R.	: 570:		: 0:	
			: I	: THRMSHK	: 000C 100C	: N.R.	: 570:		: 0:	
			: I	: 15CY		: MS-883	: 570:		: 0:	
			: I	: REVBIAS	: 125C	: 1011 A	: 570:	9.58E 04	: 0:	
			: I	: S&F EM	: 070C	: N.R.	: 570:		: 0:	
			: I			: N.R.	: 570:		: 0:	
VARIOUS 74107	DIP : N 14	: 0/70C	: 12/76	: VIS INS			: 46:		: 0:	
			: I	: S&F EM	: 025C 070C	: N.R.	: 46:		: 0:	
			: I	: THRMSHK	: 000C 100C	: N.R.	: 46:		: 0:	
			: I	: 15CY		: MS-883	: 46:		: 0:	
			: I	: REVBIAS	: 125C	: 1011 A	: 46:	7.73E 03	: 0:	
			: I	: S&F EM	: 070C	: N.R.	: 46:		: 0:	
			: I			: N.R.	: 46:		: 0:	
VARIOUS 74121	DIP : N 14	: 0/70C	: 03/76	: VIS INS			: 1695:		: 0:	
			: I	: S&F EM	: 025C 070C	: N.R.	: 1695:		: 0:	
			: I	: THRMSHK	: 000C 100C	: N.R.	: 1695:		: 0:	
			: I	: 15CY		: MS-883	: 1695:		: 0:	
			: I	: REVBIAS	: 125C	: 1011 A	: 1695:	2.85E 05	: 0:	
			: I	: S&F EM	: 070C	: N.R.	: 1695:		: 0:	
			: I			: N.R.	: 1695:		: 0:	15:MFEF 1012/15
VARIOUS 74121	DIP : N 14	: 0/70C	: 05/76	: VIS INS			: 4472:		: 0:	
			: I	: S&F EM	: 025C 070C	: N.R.	: 4472:		: 0:	
			: I	: THRMSHK	: 000C 100C	: N.R.	: 4472:		: 0:	
			: I	: 15CY		: MS-883	: 4472:		: 0:	
			: I	: REVBIAS	: 125C	: 1011 A	: 4472:	7.51E 05	: 0:	
			: I	: S&F EM	: 070C	: N.R.	: 4472:		: 0:	
			: I			: N.R.	: 4472:		: 0:	39:MFEF 1013/18, 1014/6, 1015/11, 1016/2
VARIOUS 74121	DIP : N 14	: 0/70C	: 06/76	: VIS INS			: 1500:		: 0:	
			: I	: S&F EM	: 025C 070C	: N.R.	: 1500:		: 0:	
			: I	: THRMSHK	: 000C 100C	: N.R.	: 1500:		: 0:	
			: I	: 15CY		: MS-883	: 1500:		: 0:	
			: I	: REVBIAS	: 125C	: 1011 A	: 1500:	2.52E 05	: 0:	
			: I	: S&F EM	: 070C	: N.R.	: 1500:		: 0:	
			: I			: N.R.	: 1500:		: 0:	21:MFEF 1017/2, 1018/19
VARIOUS 74121	DIP : N 14	: 0/70C	: 10/76	: VIS INS			: 6000:		: 0:	
			: I	: S&F EM	: 025C 070C	: N.R.	: 6000:		: 0:	
			: I	: TEMP CYC	: -055C 125C	: MS-883	: 6000:		: 0:	
			: I	: 5CY		: 1010 B	: 6000:	1.01E 06	: 0:	
			: I	: REVBIAS	: 125C	: N.R.	: 6000:		: 0:	
			: I	: S&F EM	: 070C	: N.R.	: 6000:		: 0:	50:MFEF 1019/2, 1020/45
VARIOUS 74121	DIP : N 14	: 0/70C	: 11/76	: VIS INS			: 2992:		: 0:	
			: I	: S&F EM	: 025C 070C	: N.R.	: 2992:		: 0:	
			: I	: TEMP CYC	: -055C 125C	: MS-883	: 2992:		: 0:	
			: I	: 5CY		: 1010 B	: 2992:	5.03E 05	: 0:	
			: I	: REVBIAS	: 125C	: N.R.	: 2992:		: 0:	
			: I	: S&F EM	: 070C	: N.R.	: 2992:		: 0:	30:MFEF 1021/23 1022/1, 1023/6

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR			OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
VARIOUS 74121	DIP : N 14 : 0/70C		12/76	VIS INS			3500:		0:	
			I	S&F EM	025C 070C	N.R.	3500:		0:	
			I	THRMSHK	000C 100C	MS-883	3500:		0:	
			I	15CY		1011 A	3500:		0:	
			I	REVBIA	125C		3500:	5.88E 05	0:	
			I	S&F EM	070C	N.R.	3500:		20:MFEF 1024/4,	
			I			N.R.			1025/16	
VARIOUS 74121	DIP : N 14 : 0/70C		02/76	VIS INS			310:		0:	
			I	S&F EM	025C 070C	N.R.	310:		0:	
			I	THRMSHK	000C 100C	MS-883	310:		0:	
			I	15CY		1011 A	310:		0:	
			I	REVBIA	125C	N.R.	310:	5.21E 04	0:	
			I	S&F EM	070C	N.R.	310:		4:MFEF 1026/4	
VARIOUS 74121	DIP : N 14 : 0/70C		02/76	VIS INS			506:		0:	
			I	S&F EM	025C 070C	N.R.	506:		0:	
			I	THRMSHK	000C 100C	MS-883	506:		0:	
			I	15CY		1011 A	506:		0:	
			I	REVBIA	125C	N.R.	506:	8.50E 04	0:	
			I	S&F EM	070C	N.R.	506:		2:MFEF 1027/2	
VARIOUS 74121	DIP : N 14 : 0/70C		09/76	VIS INS			3318:		0:	
			I	S&F EM	025C 070C	N.R.	3318:		0:	
			I	THRMSHK	000C 100C	MS-883	3318:		0:	
			I	15CY		1011 A	3318:		0:	
			I	REVBIA	125C	N.R.	3318:	5.57E 05	0:	
			I	S&F EM	070C	N.R.	3318:		189:MFEF 1028/27,	
			I			N.R.			1029/9,	
									1030/146,	
									1031/4, 1032/1,	
									1033/2	
VARIOUS 74121	DIP : N 14 : 0/70C		12/76	VIS INS			2400:		0:	
			I	S&F EM	025C 070C	N.R.	2400:		0:	
			I	THRMSHK	000C 100C	MS-883	2400:		0:	
			I	15CY		1011 A	2400:		0:	
			I	REVBIA	125C	N.R.	2400:	4.03E 05	0:	
			I	S&F EM	070C	N.R.	2400:		11:MFEF 1034/1,	
			I			N.R.			1035/10	
VARIOUS 74122	DIP : N 14 : 0/70C		05/76	VIS INS			150:		0:	
			I	S&F EM	025C 070C	N.R.	150:		0:	
			I	THRMSHK	000C 100C	MS-883	150:		0:	
			I	15CY		1011 A	150:		0:	
			I	REVBIA	125C	N.R.	150:	2.52E 04	0:	
			I	S&F EM	070C	N.R.	150:		1:MFEF 1036/1	
VARIOUS 74123	DIP : N 16 : 0/70C		04/76	VIS INS			8155:		0:	
			I	S&F EM	025C 070C	N.R.	8155:		0:	
			I	THRMSHK	000C 100C	MS-883	8155:		0:	
			I	15CY		1011 A	8155:		0:	
			I	REVBIA	125C	N.R.	8155:	1.37E 06	0:	
			I	S&F EM	070C	N.R.	8155:		24:MFEF 1037/4,	
			I			N.R.			1038/3, 1039/1,	
									1040/7, 1041/2,	
									1042/3, 1043/1,	

RELIABILITY ANALYSIS CENTER

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FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RNC	TEST SRC	STRESS LEVEL	SPEC. REF.	NO. TEST	DEGREE HOURS	NO. FLD	FAILURE SUMMARY	IF
VARIOUS	74123	DIP : N 16 : 0/70C	12/76	VIS INS			4996:		0:		
			I	S&F EM	025C 070C	N.R.	4996:		0:		
			I	THRMSPK	000C 100C	N.R.	4996:		0:		
			I	15CY		MS-883	4996:		0:		
			I	REVBIA	125C	1011 A	4996:	8.39E 05	0:		
			I	S&F EM	070C	N.R.	4996:		0:		
			I			N.R.	4996:		111:MFEF 1053/20.		
										1054/9.	
										1055-1056/79	
VARIOUS	74123	DIP : N 16 : 0/70C	11/76	VIS INS			2000:		0:		
			I	S&F EM	025C 070C	N.R.	2000:		0:		
			I	THRMSPK	000C 100C	N.R.	2000:		0:		
			I	15CY		MS-883	2000:		0:		
			I	REVBIA	125C	1011 A	2000:	3.36E 05	0:		
			I	S&F EM	070C	N.R.	2000:		0:		
			I			N.R.	2000:		27:MFEF 1057/23.		
										1058/4	
VARIOUS	74123	DIP : N 16 : 0/70C	12/76	VIS INS			2000:		0:		
			I	S&F EM	025C 070C	N.R.	2000:		0:		
			I	THRMSPK	000C 100C	N.R.	2000:		0:		
			I	15CY		MS-883	2000:		0:		
			I	REVBIA	125C	1011 A	2000:	3.36E 05	0:		
			I	S&F EM	070C	N.R.	2000:		0:		
			I			N.R.	2000:		990:MFEF 1059/3.		
										1060/984.	
										1061/3	
			I	N.A.			0:		272:MFEF 1062/272		
			I			N.R.					
VARIOUS	74173	DIP : N 16 : 0/70C	05/76	VIS INS			9849:		0:		
			I	S&F EM	025C 070C	N.R.	9849:		0:		
			I	THRMSPK	000C 100C	N.R.	9849:		0:		
			I	15CY		MS-883	9849:		0:		
			I	REVBIA	125C	1011 A	9849:	1.65E 06	0:		
			I	S&F EM	070C	N.R.	9849:		0:		
			I			N.R.	9849:		444:MFEF 1063/1.		
										1064/88.	
										1065/353	
VARIOUS	74173	DIP : N 16 : 0/70C	12/76	VIS INS			400:		0:		
			I	S&F EM	025C 070C	N.R.	400:		0:		
			I	THRMSPK	000C 100C	N.R.	400:		0:		
			I	15CY		MS-883	400:		0:		
			I	REVBIA	125C	1011 A	400:	6.72E 04	0:		
			I	S&F EM	070C	N.R.	400:		0:		
			I			N.R.	400:		51:MFEF 1066/2.		
										1067/3	
VARIOUS	74173	DIP : N 16 : 0/70C	08/76	VIS INS			45:		0:		
			I	S&F EM	025C 070C	N.R.	45:		0:		
			I	THRMSPK	000C 100C	N.R.	45:		0:		
			I	15CY		MS-883	45:		0:		
			I	REVBIA	125C	1011 A	45:	7.56E 03	0:		
			I	S&F EM	070C	N.R.	45:		0:		
			I			N.R.	45:		0:		
VARIOUS	74173	DIP : N 16 : 0/70C	11/76	VIS INS			75:		0:		
			I	S&F EM	025C 070C	N.R.	75:		0:		
			I	THRMSPK	000C 100C	N.R.	75:		0:		
			I	15CY		MS-883	75:		0:		
			I	REVBIA	125C	1011 A	75:	1.26E 04	0:		
			I	S&F EM	070C	N.R.	75:		0:		
			I			N.R.	75:		0:		

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ THF RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
VARIOUS 74174	DIP 16	N 0/70C	03/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM	025C 070C 000C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	738: 738: 738: 738: 738: 738:	1.24E 05	0: 0: 0: 0: 0: 15:MFEF 1068/2, 1069/7,1070/6	
VARIOUS 74174	DIP 16	N 0/70C	04/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM	025C 070C 000C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	1230: 1230: 1230: 1230: 1230: 1230:	2.07E 05	0: 0: 0: 0: 0: 2:MFEF 1071/2	
VARIOUS 74174	DIP 16	N 0/70C	04/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM	025C 070C 000C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	1250: 1250: 1250: 1250: 1250: 1250:	2.10E 05	0: 0: 0: 0: 0: 8:MFEF 1072/2, 1073/6	
VARIOUS 74174	DIP 16	N 0/70C	05/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM	025C 070C 000C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	40: 40: 40: 40: 40: 40:	6.72E 03	0: 0: 0: 0: 0: 0:	
VARIOUS 74174	DIP 16	N 0/70C	07/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM	025C 070C 000C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	1200: 1200: 1200: 1200: 1200: 1200:	2.02E 05	0: 0: 0: 0: 0: 10:MFEF 1074/1, 1075/9	
VARIOUS 74174	DIP 16	N 0/70C	12/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM	025C 070C 000C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	565: 565: 565: 565: 565: 565:	9.49E 04	0: 0: 0: 0: 0: 6:MFEF 1076/3, 1077/3	
VARIOUS 74174	DIP 16	N 0/70C	12/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM	025C 070C 000C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	100: 100: 100: 100: 100: 100:	1.68E 04	0: 0: 0: 0: 0: 3:MFEF 1078/3	

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 74175	DIP 16	N.R. 0/70C	11/75	SDF EM I	025C		15759		149	
				THRMSHK	000C	100C	N.R.	15610		0:
				5CYC			N.R.	15610		0:
				REVBIA	100C		N.R.	15610		83:
				SDF EM	025C		N.R.	15610		
				I						
VARIOUS 74175	DIP 16	N 0/70C	12/76	VIS INS I			5133			0:
				S&F EM	025C	070C	N.R.	5133		0:
				THRMSHK	000C	100C	MS-883	5133		0:
				15CY		1011 A		5133	8.62E 05	0:
				REVBIA	125C		N.R.	5133		70:MFEF 1079/55,
				S&F EM	070C		N.R.	5133		1080/2,
				I						1081/12
VARIOUS 74175	DIP 16	N 0/70C	03/76	VIS INS I			200			0:
				S&F EM	025C	070C	N.R.	200		0:
				THRMSHK	000C	100C	N.R.	200		0:
				15CY		1011 A	MS-883	200		0:
				REVBIA	125C		N.R.	200	3.36E 04	0:
				S&F EM	070C		N.R.	200		0:
				I						
VARIOUS 74175	DIP 16	N 0/70C	04/76	VIS INS I			5749			0:
				S&F EM	025C	070C	N.R.	5749		0:
				THRMSHK	000C	100C	N.R.	5749		0:
				15CY		1011 A	MS-883	5749		0:
				REVBIA	125C		N.R.	5749	9.66E 05	0:
				S&F EM	070C		N.R.	5749		122:MFEF 1082/9,
				I						1083/39,
										1084/5, 1085/2,
										1086/1,
										1087-1090/65
VARIOUS 74175	DIP 16	N 0/70C	03/76	VIS INS I			1500			0:
				S&F EM	025C	070C	N.R.	1500		0:
				THRMSHK	000C	100C	N.R.	1500		0:
				15CY		1011 A	MS-883	1500		0:
				REVBIA	125C		N.R.	1500	2.52E 05	0:
				S&F EM	070C		N.R.	1500		7:MFEF 1091/5,
				I						1092/2
VARIOUS 74175	DIP 16	N 0/70C	05/76	VIS INS I			2558			0:
				S&F EM	025C	070C	N.R.	2558		0:
				THRMSHK	000C	100C	N.R.	2558		0:
				15CY		1011 A	MS-883	2558		0:
				REVBIA	125C		N.R.	2558	4.30E 05	0:
				S&F EM	070C		N.R.	2558		20:MFEF 1093/11,
				I						1094/9
VARIOUS 74175	DIP 16	N 0/70C	07/76	VIS INS I			3000			0:
				S&F EM	025C	070C	N.R.	3000		0:
				THRMSHK	000C	100C	N.R.	3000		0:
				15CY		1011 A	MS-883	3000		0:
				REVBIA	125C		N.R.	3000	5.04E 05	0:
				S&F EM	070C		N.R.	3000		49:MFEF 1095/5,
				I						1096/11,
										1097/33

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
VARIOUS 74175	DIP : N 16 : 0/70C		08/76	VIS INS			3000:		0:	
			I	S&F EM	025C 070C	N.R.	3000:		0:	
			I	THRMSHK	000C 100C	N.R.	3000:		0:	
			I	15CY		MS-883	3000:		0:	
			I	REVBIA	125C	1011 A	3000:	5.04E 05	0:	
			I	S&F EM	070C	N.R.	3000:		0:	
			I			N.R.	3000:		0:	104:MFEF 1098/29, 1099/74
VARIOUS 74175	DIP : N 16 : 0/70C		10/76	VIS INS			130:		0:	
			I	S&F EM	025C 070C	N.R.	130:		0:	
			I	THRMSHK	000C 100C	N.R.	130:		0:	
			I	15CY		MS-883	130:		0:	
			I	REVBIA	125C	1011 A	130:	2.18E 04	0:	
			I	S&F EM	070C	N.R.	130:		0:	
			I			N.R.	130:		0:	18:MFEF 1100/10, 1101/5
VARIOUS 74175	DIP : N 16 : 0/70C		11/76	VIS INS			3375:		0:	
			I	S&F EM	025C 070C	N.R.	3375:		0:	
			I	THRMSHK	000C 100C	N.R.	3375:		0:	
			I	15CY		MS-883	3375:		0:	
			I	REVBIA	125C	1011 A	3375:	5.67E 05	0:	
			I	S&F EM	070C	N.R.	3375:		0:	
			I			N.R.	3375:		0:	11:MFEF 1102/2, 1103/9
VARIOUS 74175	DIP : N 16 : 0/70C		11/76	VIS INS			20:		0:	
			I	S&F EM	025C 070C	N.R.	20:		0:	
			I	THRMSHK	000C 100C	N.R.	20:		0:	
			I	15CY		MS-883	20:		0:	
			I	REVBIA	125C	1011 A	20:	3.36E 03	0:	
			I	S&F EM	070C	N.R.	20:		0:	
			I			N.R.	20:		0:	1:MFEF 1104/1
VARIOUS 74175	DIP : N 16 : 0/70C		12/76	VIS INS			300:		0:	
			I	S&F EM	025C 070C	N.R.	300:		0:	
			I	THRMSHK	000C 100C	N.R.	300:		0:	
			I	15CY		MS-883	300:		0:	
			I	REVBIA	125C	1011 A	300:	5.04E 04	0:	
			I	S&F EM	070C	N.R.	300:		0:	
			I			N.R.	300:		0:	1:MFEF 1105/1
VARIOUS 74175	DIP : N 16 : 0/70C		12/76	VIS INS			2450:		0:	
			I	S&F EM	025C 070C	N.R.	2450:		0:	
			I	THRMSHK	000C 100C	N.R.	2450:		0:	
			I	15CY		MS-883	2450:		0:	
			I	REVBIA	125C	1011 A	2450:	4.12E 05	0:	
			I	S&F EM	070C	N.R.	2450:		0:	
			I			N.R.	2450:		0:	16:MFEF 1106/2, 1107/14
VARIOUS 7470	DIP : N 14 : 0/70C		07/76	VIS INS			50:		0:	
			I	S&F EM	025C 070C	N.R.	50:		0:	
			I	THRMSHK	000C 100C	N.R.	50:		0:	
			I	15CY		MS-883	50:		0:	
			I	REVBIA	125C	1011 A	50:	8.40E 03	0:	
			I	S&F EM	070C	N.R.	50:		0:	
			I			N.R.	50:		0:	

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY			BIPOLAR		OPERATIONAL TYPE TTL					
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 7473	DIP 14	N 0/70C	07/76	VIS INS			7050:		0:	
			I	S&F EM	025C 070C	N.R.	7050:		0:	
			I	THRMSHK	000C 100C	N.R.	7050:		0:	
			I	15CY		MS-883	7050:		0:	
			I	REVBIA	125C	1011 A	7050:	1.18E 06	0:	
			I	S&F EM	070C	N.R.	7050:		0:	
			I			N.R.			44:MFEF 1108/1,	
									1109/13,	
									1110-1112/30	
VARIOUS 7473	DIP 14	N 0/70C	05/76	VIS INS			2996:		0:	
			I	S&F EM	025C 070C	N.R.	2996:		0:	
			I	THRMSHK	000C 100C	N.R.	2996:		0:	
			I	15CY		MS-883	2996:		0:	
			I	REVBIA	125C	1011 A	2996:		0:	
			I	S&F EM	070C	N.R.	2996:		0:	
			I			N.R.	2996:		12:MFEF 1113/3,	
									1114/9	
VARIOUS 7473	DIP 14	N 0/70C	05/76	VIS INS			3017:		0:	
			I	S&F EM	025C 070C	N.R.	3017:		0:	
			I	THRMSHK	000C 100C	N.R.	3017:		0:	
			I	15CY		MS-883	3017:		0:	
			I	REVBIA	125C	1011 A	3017:	5.07E 05	0:	
			I	S&F EM	070C	N.R.	3017:		0:	
			I			N.R.	3017:		21:MFEF 1115/21	
VARIOUS 7473	DIP 14	N 0/70C	08/76	VIS INS			4447:		0:	
			I	S&F EM	025C 070C	N.R.	4447:		0:	
			I	THRMSHK	000C 100C	N.R.	4447:		0:	
			I	15CY		MS-883	4447:		0:	
			I	REVBIA	125C	1011 A	4447:	7.47E 05	0:	
			I	S&F EM	070C	N.R.	4447:		0:	
			I			N.R.	4447:		12:MFEF 1116/1,	
									1117/11	
VARIOUS 7473	DIP 14	N 0/70C	08/76	VIS INS			3000:		0:	
			I	S&F EM	025C 070C	N.R.	3000:		0:	
			I	THRMSHK	000C 100C	N.R.	3000:		0:	
			I	15CY		MS-883	3000:		0:	
			I	REVBIA	125C	1011 A	3000:	5.04E 05	0:	
			I	S&F EM	070C	N.R.	3000:		0:	
			I			N.R.	3000:		11:MFEF 1118/2,	
									1119/5	
VARIOUS 7473	DIP 14	N 0/70C	09/76	VIS INS			4000:		0:	
			I	S&F EM	025C 070C	N.R.	4000:		0:	
			I	THRMSHK	000C 100C	N.R.	4000:		0:	
			I	15CY		MS-883	4000:		0:	
			I	REVBIA	125C	1011 A	4000:	6.72E 05	0:	
			I	S&F EM	070C	N.R.	4000:		0:	
			I			N.R.	4000:		5:MFEF 1120/5	
VARIOUS 7473	DIP 14	N 0/70C	12/76	VIS INS			75:		0:	
			I	S&F EM	025C 070C	N.R.	75:		0:	
			I	TEMPCYC	-055C 125C	N.R.	75:		0:	
			I	5CY		MS-883	75:		0:	
			I	REVBIA	125C	1010 B	75:	1.26E 04	0:	
			I	S&F EM	070C	N.R.	75:		0:	
			I			N.R.				

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCP CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 7474	DIP 14	N.R. 0/70C	11/75	SDF EM I	025C		20008:		170:	
				THRMSHK I	000C 100C	N.R.	19838:		0:	
				5CYC I		N.R.	19838:	3.33E 06	0:	
				REVBIA I	100C	N.R.	19838:		0:	
				SDF EM I	025C	N.R.	19838:		81:	
VARIOUS 7474	DIP 14	N 0/70C	04/76	VIS INS I			6998:		0:	
				S&F EM I	025C 070C	N.R.	6998:		0:	
				THRMSHK I	000C 100C	MS-883	6998:		0:	
				15CY I		1011 A	6998:	1.18E 06	0:	
				REVBIA I	125C	N.R.	6998:		0:	
				S&F EM I	070C	N.R.	6998:		34:MFEF 1121/2, 1122/1,1123/4:	
VARIOUS 7474	DIP 14	N 0/70C	04/76	VIS INS I			3047:		0:	
				S&F EM I	025C 070C	N.R.	3047:		0:	
				THRMSHK I	000C 100C	MS-883	3047:		0:	
				15CY I		1011 A	3047:	5.12E 05	0:	
				REVBIA I	125C	N.R.	3047:		0:	
				S&F EM I	070C	N.R.	3047:		14:MFEF 1124/10, 1125/4:	
VARIOUS 7474	DIP 14	N 0/70C	09/76	VIS INS I			10250:		0:	
				S&F EM I	025C 070C	N.R.	10250:		0:	
				THRMSHK I	000C 100C	MS-883	10250:		0:	
				15CY I		1011 A	10250:	1.72E 06	0:	
				REVBIA I	125C	N.R.	10250:		0:	
				S&F EM I	070C	N.R.	10250:		52:MFEF 1126/31, 1127/2,1128/1, 1129/18:	
VARIOUS 7474	DIP 14	N 0/70C	10/76	VIS INS I			5000:		0:	
				S&F EM I	025C 070C	N.R.	5000:		0:	
				THRMSHK I	000C 100C	MS-883	5000:		0:	
				15CY I		1011 A	5000:	8.40E 05	0:	
				REVBIA I	125C	N.R.	5000:		0:	
				S&F EM I	070C	N.R.	5000:		21:MFEF 1130/2, 1131/1, 1132/18:	
VARIOUS 7474	DIP 14	N 0/70C	12/76	VIS INS I			31410:		0:	
				S&F EM I	025C 070C	N.R.	31410:		0:	
				THRMSHK I	000C 100C	MS-883	31410:		0:	
				15CY I		1011 A	31410:	5.28E 06	0:	
				REVBIA I	125C	N.R.	31410:		0:	
				S&F EM I	070C	N.R.	31410:		214:MFFF 1133/21, 1134/22, 1135/4,1136/9, 1137/1, 1138-1141/157:	
VARIOUS 7474	DIP 14	N 0/70C	09/76	VIS INS I			36845:		0:	
				S&F EM I	025C 070C	N.R.	36845:		0:	
				THRMSHK I	000C 100C	MS-883	36845:		0:	
				15CY I		1011 A	36845:	6.19E 06	0:	
				REVBIA I	125C	N.R.	36845:		0:	
				S&F EM I	070C	N.R.	36845:		133:MFEF 1142/3, 1143/11, 1144/1,1145/4, 1146-1154/114:	

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
VARIOUS 7476	DIP 16	N.R. 0/70C	11/75	SDF EM I	025C 100C	N.R.	34133		354		
				THRMSHK	000C	N.R.	33779		0		
				5CYC	100C	N.R.	33779	5.67E 06	0		
				REVBIA	100C	N.R.	33779		91		
				SDF EM	025C	N.R.	33779				
VARIOUS 7476	DIP 16	N 0/70C	08/76	VIS INS I		N.R.	1500		0		
				S&F EM	025C 070C	N.R.	1500		0		
				THRMSHK	000C 100C	MS-883	1500		0		
				15CY	125C	1011 A	1500	2.52E 05	0		
				REVBIA	125C	N.R.	1500		15:MFEF 1155/1,		
				S&F EM	070C	N.R.	1500		1156/6, 1157/8		
VARIOUS 7476	DIP 16	N 0/70C	05/76	VIS INS I		N.R.	3000		0		
				S&F EM	025C 070C	N.R.	3000		0		
				THRMSHK	000C 100C	MS-883	3000		0		
				15CY	125C	1011 A	3000	5.04E 05	0		
				REVBIA	125C	N.R.	3000		15:MFEF 1158/1,		
				S&F EM	070C	N.R.	3000		1159/14		
VARIOUS 7476	DIP 16	N 0/70C	06/76	VIS INS I		N.R.	1496		0		
				S&F EM	025C 070C	N.R.	1496		0		
				THRMSHK	000C 100C	MS-883	1496		0		
				15CY	125C	1011 A	1496	2.51E 05	0		
				REVBIA	125C	N.R.	1496		31:MFEF 1160/4,		
				S&F EM	070C	N.R.	1496		1161/27		
VARIOUS 7476	DIP 16	N 0/70C	11/76	VIS INS I		N.R.	662		0		
				S&F EM	025C 070C	N.R.	662		0		
				THRMSHK	000C 100C	MS-883	662		0		
				15CY	125C	1011 A	662	1.11E 05	0		
				REVBIA	125C	N.R.	662		22:MFEF 1162/1,		
				S&F EM	070C	N.R.	662		1163/18		
VARIOUS 7476	DIP 16	N 0/70C	06/76	VIS INS I		N.R.	4482		0		
				S&F EM	025C 070C	N.R.	4482		0		
				THRMSHK	000C 100C	MS-883	4482		0		
				15CY	125C	1011 A	4482	7.53E 05	0		
				REVBIA	125C	N.R.	4482		13:MFEF 1164/1,		
				S&F EM	070C	N.R.	4482		1165/2, 1166/4,		
									1167/6		
VARIOUS 8601/9601	DIP 14	N 0/70C	12/76	VIS INS I		N.R.	1000		0		
				S&F EM	025C 070C	N.R.	1000		0		
				THRMSHK	000C 100C	MS-883	1000		0		
				15CY	125C	1011 A	1000	1.68E 05	0		
				REVBIA	125C	N.R.	1000		3:MFEF 1168/3		
				S&F EM	070C	N.R.	1000				

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 96J2	DIP : N 16 : 0/70C		05/76	VIS INS : I : S&F EM : 025C : THRMSHK : 000C : 15CY : REVBIAS : 125C : S&F EM : 070C : I	070C 100C	N.R. N.R. MS-883 1011 A N.R. N.R.	995: 995: 995: 995: 995: 995:		0: 0: 0: 0: 0: 16:MFEF 1169/1, 1170/15	
VARIOUS 9602	DIP : N 16 : 0/70C		05/76	VIS INS : I : S&F EM : 025C : THRMSHK : 000C : 15CY : REVBIAS : 125C : S&F EM : 070C : I	070C 100C	N.R. N.R. MS-883 1011 A N.R. N.R.	820: 820: 820: 820: 820: 820:		0: 0: 0: 0: 0: 9:MFEF 1171/9	
VARIOUS 9602	DIP : N 16 : 0/70C		06/76	VIS INS : I : S&F EM : 025C : THRMSHK : 000C : 15CY : REVBIAS : 125C : S&F EM : 070C : I	070C 100C	N.R. N.R. MS-883 1011 A N.R. N.R.	644: 644: 644: 644: 644: 644:		0: 0: 0: 0: 0: 27:MFEF 1172/3, 1173/24	
VARIOUS 9602	DIP : N 16 : 0/70C		09/76	VIS INS : I : S&F EM : 025C : THRMSHK : 000C : 15CY : REVBIAS : 125C : S&F EM : 070C : I	070C 100C	N.R. N.R. MS-883 1011 A N.R. N.R.	5991: 5991: 5991: 5991: 5991: 5991:		0: 0: 0: 0: 0: 60:MFEF 1174/60	
VARIOUS 9602	DIP : N 16 : 0/70C		06/76	VIS INS : I : S&F EM : 025C : THRMSHK : 000C : 15CY : REVBIAS : 125C : S&F EM : 070C : I	070C 100C	N.R. N.R. MS-883 1011 A N.R. N.R.	411: 411: 411: 411: 411: 411:		0: 0: 0: 0: 0: 33:MFEF 1175/25, 1176/8	
VARIOUS 9602	DIP : N 16 : 0/70C		07/76	VIS INS : I : S&F EM : 025C : THRMSHK : 000C : 15CY : REVBIAS : 125C : S&F EM : 070C : I	070C 100C	N.R. N.R. MS-883 1011 A N.R. N.R.	2000: 2000: 2000: 2000: 2000: 2000:		0: 0: 0: 0: 0: 8:MFEF 1177/7, 1178/1	
VARIOUS 9602	DIP : N 16 : 0/70C		27/76	VIS INS : I : S&F EM : 025C : THRMSHK : 000C : 15CY : REVBIAS : 125C : S&F EM : 070C : I	070C 100C	N.R. N.R. MS-883 1011 A N.R. N.R.	2000: 2000: 2000: 2000: 2000: 2000:		0: 0: 0: 0: 0: 11:MFEF 1179/3, 1180-1182/8	

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY			BIPOLAR		OPERATIONAL TYPE						TTL	
MANUFACTURER	P&G/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	7-:LURE		
PART NO	PING	TMP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY		
VARIOUS	DIP	N	10/76	VIS INS			1890:		0:			
9602	16	0/70C	I	S&F EM	025C 070C	N.R.	1890:		0:			
			I	THRMSHK	000C 100C	MS-883	1890:		0:			
			I	15CY		1011 A	1890:		0:			
			I	REVBIA	125C		1890:	3.18E 05	0:			
			I	S&F EM	070C	N.R.	1890:		28:MFEF 1183/11,			
			I			N.R.			1184/17			
VARIOUS	DIP	N	10/76	VIS INS			1200:		0:			
9602	16	0/70C	I	S&F EM	025C 070C	N.R.	1200:		0:			
			I	THRMSHK	000C 100C	MS-883	1200:		0:			
			I	15CY		1011 A	1200:		0:			
			I	REVBIA	125C		1200:	2.02E 05	0:			
			I	S&F EM	070C	N.R.	1200:		8:MFEF 1185/3,			
			I			N.R.			1186/5			
VARIOUS	DIP	N	12/76	VIS INS			2110:		0:			
9602	16	0/70C	I	S&F EM	025C 070C	N.R.	2110:		0:			
			I	THRMSHK	000C 100C	MS-883	2110:		0:			
			I	15CY		1011 A	2110:		0:			
			I	REVBIA	125C		2110:	3.54E 05	0:			
			I	S&F EM	070C	N.R.	2110:		24:MFEF 1189/1,			
			I			N.R.			1190/23			
VARIOUS	DIP	N	12/76	VIS INS			1499:		0:			
9602	16	0/70C	I	S&F EM	025C 070C	N.R.	1499:		0:			
			I	THRMSHK	000C 100C	MS-883	1499:		0:			
			I	15CY		1011 A	1499:		0:			
			I	REVBIA	125C		1499:	2.52E 05	0:			
			I	S&F EM	070C	N.R.	1499:		7:MFEF 1187/2,			
			I			N.R.			1188/4			
VARIOUS	DIP	N	12/76	VIS INS			2000:		0:			
9602	16	0/70C	I	S&F EM	025C 070C	N.R.	2000:		0:			
			I	THRMSHK	000C 100C	MS-883	2000:		0:			
			I	15CY		1011 A	2000:		0:			
			I	REVBIA	125C		2000:	3.36E 05	0:			
			I	S&F EM	070C	N.R.	2000:		75:MFEF 1191/62,			
			I			N.R.			1192/13			

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL, SUHL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS F213	FPK 14	C-2 -55/125	03/76 U	VIS INS	20X		24760		0	
			U	BAKE	125C	N.R.	24760	5.94E 05	0	
			U	TEMPCYC	-055C 125C	MS-883	24760		0	
			U	10CY		1008 B	24760		0	
			U	CNSTACC		MS-883	24760		0	
			U			1010 B	24760		0	
			U	FINE LK	HE 5.E-8	N.R.	24760		215	
			U	60 MIN		MS-883	24760		27	
			U	GROSSLK	FLUOR 125C	1014 A	24545		466	
			U	3X		MS-883	24518		0	
			U	X-RAY	28X	1014 C	24052		0	
			U	EM		MS-883	22131	3.63E 06	0	
			U	REVBIA	125C	N.R.	22131		990	
			U	EM		N.R.	22131		229	
			U	N.A.		N.R.	0		0	
			U	EM		N.R.	20912		0	
			U			N.R.				
VARIOUS F260	FPK 14	C-2 -55/125	03/76 U	VIS INS	20X		19985		0	
			U	BAKE	125C	N.R.	19985	4.80E 05	0	
			U	TEMPCYC	-055C 125C	MS-883	19985		0	
			U	10CY		1008 B	19985		0	
			U	CNSTACC		MS-883	19985		0	
			U			1010 B	19985		0	
			U	FINE LK	HE 5.E-8	N.R.	19985		2	
			U	60 MIN		MS-883	19985		0	
			U	GROSSLK	FLUOR 125C	1014 A	19983		0	
			U	3X		MS-883	19983		0	
			U	X-RAY	28X	1014 C	19983		0	
			U	EM		MS-883	19983		408	
			U			2012	19983		990	
			U	REVBIA	125C	N.R.	17929	2.94E 06	0	
			U	EM		N.R.	17929		276	
			U	N.A.		N.R.	0		0	
			U	EM		N.R.	16663		0	
			U			N.R.				

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
MOTOROLA 14013	E-DIP 14	N -40/80C	05/76 I	VIS INS			50		0	
			I	S&F EM	025C 070C	N.R.	50		0	
			I	THRMSHK	000C 100C	N.R.	50		0	
			I	15CY		MS-883	50	8.40E 03	0	
			I	REVBIA	125C	1011 A	50		0	
			I	S&F EM	070C	N.R.	50		0	
			I			N.R.				
MOTOROLA 14528	E-DIP 16	N -40/80C	05/76 I	VIS INS			109		0	
			I	S&F EM	025C 070C	N.R.	109		0	
			I	THRMSHK	000C 100C	N.R.	109		0	
			I	15CY		MS-883	109		0	
			I	REVBIA	125C	1011 A	109	1.83E 04	0	
			I	S&F EM	070C	N.R.	109		20:MFEF 1193/20	
			I			N.R.				

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TEMP RING	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY /#
RCA	E-DIP	N	05/76	VIS INS			50:		0:	
4013A	14	-40/80C	I	S&F EM	025C 070C	N.R.	50:		0:	
			I	THRMSHK	000C 100C	N.R.	50:		0:	
			I	REVBIA	125C	MS-883	50:		0:	
			I	S&F EM	070C	1011 A	50:	8.40E 03	0:	
			I			N.R.	50:		0:	
			I			N.R.	50:		0:	

GATE

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TEMP RING	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY /#
SIGNETICS	F-DIP	N	06/76	VIS INS			112:		0:	
82S41	14	0/70C	I	S&F EM	025C 070C	N.R.	112:		0:	
			I	THRMSHK	000C 100C	N.R.	112:		0:	
			I	REVBIA	125C	MS-883	112:		0:	
			I	S&F EM	070C	1011 A	112:	1.88E 04	0:	
			I			N.R.	112:		3:MFEF 1194/2	
			I			N.R.				
SIGNETICS	E-DIP	N	11/76	VIS INS			25:		0:	
82S41	14	0/70C	I	S&F EM	025C 070C	N.R.	25:		0:	
			I	THRMSHK	000C 100C	N.R.	25:		0:	
			I	REVBIA	125C	MS-883	25:		0:	
			I	S&F EM	070C	1011 A	25:	4.20E 03	0:	
			I			N.R.	25:		2:MFEF 1195/2	
			I			N.R.				
SIGNETICS	E-DIP	N	03/76	VIS INS			500:		0:	
82S42	14	0/70C	I	S&F EM	025C 070C	N.R.	500:		0:	
			I	THRMSHK	000C 100C	N.R.	500:		0:	
			I	REVBIA	125C	MS-883	500:		0:	
			I	S&F EM	070C	1011 A	500:	8.40E 04	0:	
			I			N.R.	500:		5:MFEF 1196/1,	
			I			N.R.			1197/4	
SIGNETICS	E-DIP	N	12/76	VIS INS			158:		0:	
82S42	14	0/70C	I	S&F EM	025C 070C	N.R.	158:		0:	
			I	THRMSHK	000C 100C	N.R.	158:		0:	
			I	REVBIA	125C	MS-883	158:		0:	
			I	S&F EM	070C	1011 A	158:	2.65E 04	0:	
			I			N.R.	158:		3:	
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			3294:		0:	
74S00	14	0/70C	I	S&F EM	025C 070C	N.R.	3294:		0:	
			I	THRMSHK	000C 100C	N.R.	3294:		0:	
			I	REVBIA	125C	MS-883	3294:		0:	
			I	S&F EM	070C	1011 A	3294:	5.53E 05	0:	
			I			N.R.	3294:		9:MFEF 1198/2,	
			I			N.R.			1199/7	

GATE

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 74S00	DIP : N 14	: 0/70C	: 09/76	: VIS INS			: 300:		: 0:	
			: I	: S&F EM	: 025C 070C	: N.R.	: 300:		: 0:	
			: I	: THRMSHK	: 000C 100C	: N.R.	: 300:		: 0:	
			: I	: 15CY		: MS-883	: 300:		: 0:	
			: I	: REVBIAS	: 125C	: 1011 A	: 300:	5.04E 04	: 0:	
			: I	: S&F EM	: 070C	: N.R.	: 300:		: 1:	
			: I			: N.R.				
VARIOUS 74S00	DIP : N 14	: 0/70C	: 10/76	: VIS INS			: 1000:		: 0:	
			: I	: S&F EM	: 025C 070C	: N.R.	: 1000:		: 0:	
			: I	: THRMSHK	: 000C 100C	: N.R.	: 1000:		: 0:	
			: I	: 15CY		: MS-883	: 1000:		: 0:	
			: I	: REVBIAS	: 125C	: 1011 A	: 1000:	1.68E 05	: 0:	
			: I	: S&F EM	: 070C	: N.R.	: 1000:		: 0:	
			: I			: N.R.				
VARIOUS 74S00	DIP : N 14	: 0/70C	: 10/76	: VIS INS			: 2325:		: 0:	
			: I	: S&F EM	: 025C 070C	: N.R.	: 2325:		: 0:	
			: I	: THRMSHK	: 000C 100C	: N.R.	: 2325:		: 0:	
			: I	: 15CY		: MS-883	: 2325:		: 0:	
			: I	: REVBIAS	: 125C	: 1011 A	: 2325:	3.91E 05	: 0:	
			: I	: S&F EM	: 070C	: N.R.	: 2325:		: 0:	
			: I			: N.R.				12:MFEF 1200/12
VARIOUS 74S00	DIP : N 14	: 0/70C	: 10/76	: VIS INS			: 249:		: 0:	
			: I	: S&F EM	: 025C 070C	: N.R.	: 249:		: 0:	
			: I	: THRMSHK	: 000C 100C	: N.R.	: 249:		: 0:	
			: I	: 15CY		: MS-883	: 249:		: 0:	
			: I	: REVBIAS	: 125C	: 1011 A	: 249:	4.18E 04	: 0:	
			: I	: S&F EM	: 070C	: N.R.	: 249:		: 0:	
			: I			: N.R.				
VARIOUS 74S00	DIP : N 14	: 0/70C	: 12/76	: VIS INS			: 1300:		: 0:	
			: I	: S&F EM	: 025C 070C	: N.R.	: 1300:		: 0:	
			: I	: THRMSHK	: 000C 100C	: N.R.	: 1300:		: 0:	
			: I	: 15CY		: MS-883	: 1300:		: 0:	
			: I	: REVBIAS	: 125C	: 1011 A	: 1300:	2.18E 05	: 0:	
			: I	: S&F EM	: 070C	: N.R.	: 1300:		: 0:	
			: I			: N.R.				2:MFEF 1201/2
VARIOUS 74S00	DIP : N 14	: 0/70C	: 12/76	: VIS INS			: 5000:		: 0:	
			: I	: S&F EM	: 025C 070C	: N.R.	: 5000:		: 0:	
			: I	: THRMSHK	: 000C 100C	: N.R.	: 5000:		: 0:	
			: I	: 15CY		: MS-883	: 5000:		: 0:	
			: I	: REVBIAS	: 125C	: 1011 A	: 5000:	8.40E 05	: 0:	
			: I	: S&F EM	: 070C	: N.R.	: 5000:		: 0:	
			: I			: N.R.				10:MFEF 1202/8, 1203/2
VARIOUS 74S02	DIP : N 14	: 0/70C	: 08/76	: VIS INS			: 100:		: 0:	
			: I	: S&F EM	: 025C 070C	: N.R.	: 100:		: 0:	
			: I	: THRMSHK	: 000C 100C	: N.R.	: 100:		: 0:	
			: I	: 15CY		: MS-883	: 100:		: 0:	
			: I	: REVBIAS	: 125C	: 1011 A	: 100:	1.68E 04	: 0:	
			: I	: S&F EM	: 070C	: N.R.	: 100:		: 0:	
			: I			: N.R.				

DATE

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ IMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	//
VARIOUS 74S02	DIP : N 14 : 0/70C		11/76 I	VIS INS : S&F EM	: 025C 070C	: N.R.	390: 390:		0: 0:		
			I	: THRMSHK : 000C 100C		: MS-883	390:		0:		
			I	: 15CY		: 1011 A	390:	6.55E 04	0:		
			I	: REVBIAS : 125C		: N.R.	390:		0:		
			I	: S&F EM : 070C		: N.R.	390:		7:MFEF 1204/7		
			I								
VARIOUS 74S03	DIP : N 14 : 0/70C		03/76 I	VIS INS : S&F EM	: 025C 070C	: N.R.	225: 225:		0: 0:		
			I	: THRMSHK : 000C 100C		: MS-883	225:		0:		
			I	: 15CY		: 1011 A	225:	3.75E 04	0:		
			I	: REVBIAS : 125C		: N.R.	225:		0:		
			I	: S&F EM : 070C		: N.R.	225:		5:MFEF 1205/4		
			I								
VARIOUS 74S10	DIP : N 14 : 0/70C		09/76 I	VIS INS : S&F EM	: 025C 070C	: N.R.	391: 391:		0: 0:		
			I	: THRMSHK : 000C 100C		: MS-883	391:		0:		
			I	: 15CY		: 1011 A	391:	6.57E 04	0:		
			I	: REVBIAS : 125C		: N.R.	391:		0:		
			I	: S&F EM : 070C		: N.R.	391:		24:MFEF 1206/24		
			I								
VARIOUS 74S10	DIP : N 14 : 0/70C		10/76 I	VIS INS : S&F EM	: 025C 070C	: N.R.	200: 200:		0: 0:		
			I	: THRMSHK : 000C 100C		: MS-883	200:		0:		
			I	: 15CY		: 1011 A	200:	3.36E 02	0:		
			I	: REVBIAS : 125C		: N.R.	200:		0:		
			I	: S&F EM : 070C		: N.R.	200:		1:MFEF 1207/1		
			I								
VARIOUS 74S11	DIP : N 14 : 0/70C		05/76 I	VIS INS : S&F EM	: 025C 070C	: N.R.	725: 725:		0: 0:		
			I	: THRMSHK : 000C 100C		: MS-883	725:		0:		
			I	: 15CY		: 1011 A	725:	1.22E 05	0:		
			I	: REVBIAS : 125C		: N.R.	725:		0:		
			I	: S&F EM : 070C		: N.R.	725:		1:MFEF 1208/1		
			I								
VARIOUS 74S11	DIP : N 14 : 0/70C		12/76 I	VIS INS : S&F EM	: 025C 070C	: N.R.	150: 150:		0: 0:		
			I	: THRMSHK : 000C 100C		: MS-883	150:		0:		
			I	: 15CY		: 1011 A	150:	2.52E 04	0:		
			I	: REVBIAS : 125C		: N.R.	150:		0:		
			I	: S&F EM : 070C		: N.R.	150:		0:		
			I								
VARIOUS 74S11	DIP : N 14 : 0/70C		05/76 I	VIS INS : S&F EM	: 025C 070C	: N.R.	25: 25:		0: 0:		
			I	: THRMSHK : 000C 100C		: MS-883	25:		0:		
			I	: 15CY		: 1011 A	25:	4.20E 03	0:		
			I	: REVBIAS : 125C		: N.R.	25:		0:		
			I	: S&F EM : 070C		: N.R.	25:		0:		
			I								

CATF

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER PART NO	PKG/ PINS	SCH CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	II
VARIOUS 74S11	DIP : N 14 : 0/70C		10/76 I	VIS INS :S&F EM :025C 070C		N.R.	29:		0:		
			I	:THRMSHK :000C 100C		N.R.	29:		0:		
			I	:15CY :1011 A		MS-883	29:		0:		
			I	:REVBIAIS :125C		N.R.	29:	4.87E 03	C:		
			I	:S&F EM :070C		N.R.	29:		4:		
			I			N.R.					
VARIOUS 74S133	DIP : N 16 : 0/70C		05/76 I	VIS INS :S&F EM :025C 070C		N.R.	120:		0:		
			I	:THRMSHK :000C 100C		N.R.	120:		0:		
			I	:15CY :1011 A		MS-883	120:		0:		
			I	:REVBIAIS :125C		N.R.	120:	2.02E 04	0:		
			I	:S&F EM :070C		N.R.	120:		3:MFEF 1209/2, 1210/1		
			I			N.R.					
VARIOUS 74S133	DIP : N 16 : 0/70C		06/76 I	VIS INS :S&F EM :025C 070C		N.R.	62:		0:		
			I	:THRMSHK :000C 100C		N.R.	62:		0:		
			I	:15CY :1011 A		MS-883	62:		0:		
			I	:REVBIAIS :125C		N.R.	62:	1.04E 04	0:		
			I	:S&F EM :070C		N.R.	62:		2:MFEF 1211/2		
			I			N.R.					
VARIOUS 74S133	DIP : N 16 : 0/70C		10/76 I	VIS INS :S&F EM :025C 070C		N.R.	100:		0:		
			I	:THRMSHK :000C 100C		N.R.	100:		0:		
			I	:15CY :1011 A		MS-883	100:		0:		
			I	:REVBIAIS :125C		N.R.	100:	1.68E 04	0:		
			I	:S&F EM :070C		N.R.	100:		2:MFEF 1212/2		
			I			N.R.					
VARIOUS 74S51	DIP : N 14 : 0/70C		07/76 I	VIS INS :S&F EM :025C 070C		N.R.	100:		0:		
			I	:THRMSHK :000C 100C		N.R.	100:		0:		
			I	:15CY :1011 A		MS-883	100:		0:		
			I	:REVBIAIS :125C		N.R.	100:	1.68E 04	0:		
			I	:S&F EM :070C		N.R.	100:		25:		
			I			N.R.					
VARIOUS 74S51	DIP : N 14 : 0/70C		09/76 I	VIS INS :S&F EM :025C 070C		N.R.	125:		0:		
			I	:THRMSHK :000C 100C		N.R.	125:		0:		
			I	:15CY :1011 A		MS-883	125:		0:		
			I	:REVBIAIS :125C		N.R.	125:	2.10E 04	0:		
			I	:S&F EM :070C		N.R.	125:		6:MFEF 1213/6		
			I			N.R.					
VARIOUS 74S56	DIP : N 14 : 0/70C		04/76 I	VIS INS :S&F EM :025C 070C		N.R.	130:		C:		
			I	:THRMSHK :000C 100C		N.R.	130:		0:		
			I	:15CY :1011 A		MS-883	130:		0:		
			I	:REVBIAIS :125C		N.R.	130:	2.18E 04	0:		
			I	:S&F EM :070C		N.R.	130:		1:MFEF 1214/1		
			I			N.R.					

GATE				ENVIRONMENTAL BURN-IN				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE SCHOTTKY TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PI:S	THP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLO	SUMMARY	/#
VARIOUS	DIP	N	06/76	VIS INS			353		0		
74S86	14	0/70C	I	S&F EM	025C 070C	N.R.	353		0		
			I	THRMSHK	000C 100C	N.R.	353		0		
			I	SCYC		MS-883	353		0		
			I	REVBIA	125C	1011 A	353	5.93E 04	0		
			I	S&F EM	070C	N.R.	353		4:MFEF 1215/1.		
			I			N.R.			1216/3		

GATE				ENVIRONMENTAL BURN-IN				RELIABILITY ANALYSIS CENTER			
BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE LOW POWER TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PISS	THP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLO	SUMMARY	/#
NATIONAL	E-DIP	N.R.	11/75	SDF EM	025C		8897		33		
74L02	14	0/70C	I	THRMSHK	000C 100C	N.R.	8864		0		
			I	SCYC		N.R.	8864	1.49E 06	0		
			I	REVBIA	100C	N.R.	8864		10		
			I	SDF EM	025C	N.R.	8864		65		
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		15032		0		
74L00	14	0/70C	I	THRMSHK	000C 100C	N.R.	14967		0		
			I	SCYC		N.R.	14967	2.51E 06	0		
			I	REVBIA	100C	N.R.	14967		73		
			I	SDF EM	025C	N.R.	14967		2		
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		130		0		
74L20	14	0/70C	I	THRMSHK	000C 100C	N.R.	128		0		
			I	SCYC		N.R.	128	2.15E 04	0		
			I	REVBIA	100C	N.R.	128		0		
			I	SDF EM	025C	N.R.	128		0		
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		50		1		
74LS1	14	0/70C	I	THRMSHK	000C 100C	N.R.	49		0		
			I	SCYC		N.R.	49	8.23E 03	0		
			I	REVBIA	100C	N.R.	49		0		
			I	SDF EM	025C	N.R.	49		313		
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		1487		0		
74LS4	14	0/70C	I	THRMSHK	000C 110C	N.R.	1174		0		
			I	SCYC		N.R.	1174	1.97E 05	0		
			I	REVBIA	100C	N.R.	1174		14		
			I	SDF EM	025C	N.R.	1174		1		
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		141		0		
74LS6	14	0/70C	I	THRMSHK	000C 100C	N.R.	140		0		
			I	SCYC		N.R.	140	2.35E 04	0		
			I	REVBIA	100C	N.R.	140		0		
			I	SDF EM	025C	N.R.	140		0		

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE LOW POWER TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
VARIOUS 74L10	DIP 14	N.R. 0/70C	11/75	SDF EM	025C	N.R.	13682		66		
			I	THRMSHK	000C 100C	N.R.	13616		0		
			I	SCYC		N.R.	13616	2.29E 06	0		
			I	REVBIA	100C	N.R.	13616		39		
			I	SDF EM	025C	N.R.	13616				
VARIOUS 74LS1	DIP 14	N.R. 0/70C	11/75	SDF EM	025C	N.R.	4453		20		
			I	THRMSHK	000C 100C	N.R.	4433		0		
			I	SCYC		N.R.	4433	7.45E 05	0		
			I	REVBIA	100C	N.R.	4433		6		
			I	SDF EM	025C	N.R.	4433				
VARIOUS 74LS86	DIP 14	N 0/70C	05/76	VIS INS		N.R.	50		0		
			I	S&F EM	025C 070C	N.R.	50		0		
			I	THRMSHK	000C 100C	MS-883	50		0		
			I	15CY		1011 A	50	8.40E 03	0		
			I	REVBIA	125C	N.R.	50		0		
			I	S&F EM	070C	N.R.	50		0		

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE HIGH SPEED TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
MOTOROLA 3003	E-DIP 14	N 0/70C	07/76	VIS INS		N.R.	30		0		
			I	S&F EM	025C 070C	N.R.	30		0		
			I	THRMSHK	000C 100C	MS-883	30		0		
			I	15CY		1011 A	30	5.04E 03	0		
			I	REVBIA	125C	N.R.	30		0		
			I	S&F EM	070C	N.R.	30		0		
MOTOROLA 3026	E-DIP 14	N 0/70C	06/76	VIS INS		N.R.	30		0		
			I	S&F EM	025C 070C	N.R.	30		0		
			I	THRMSHK	000C 100C	MS-883	30		0		
			I	15CY		1011 A	30	5.04E 03	0		
			I	REVBIA	125C	N.R.	30		0		
			I	S&F EM	070C	N.R.	30		0		
SIGASTICS 5/H01	FPK 14	N -55/125	03/75	VIS INS	30X	MM38510	650		0		
			Q	75X		2010 B	650	1.56E 04	0		
			Q	BAKE	150C	MM38510	650		0		
			Q	TEMPCYC	-065C 150C	1008 C	650		0		
			Q	10CY		1010 C	650		12		
			Q	CNSTACC	30KG 1 AXIS	MM38510	650				
			Q	1 MIN E		2001 E	638		3:MFEF 1899/3		
			Q	FINE LK	HE 5.E-8	MM38510	635		3:MFEF 1900/3		
			Q	60 MIN		1014 A	632				
			Q	GROSSLK	FLUOR 125C	MM38510	632				
			Q	3X		1014 C	632				
			Q	EM	025C	MM38510	632				
			Q	PAR EXC	125C	MM38510	632	1.06E 05	0		
			Q	S&D EM	-055C 025C	1015 D	632		134		
			Q	125C		N.R.	498		0		
			Q	VIS INS	3X	MM38510	2009				

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
SIGNETICS 54H50	DIP 14	N -55/125	04/75	VIS INS Q	30X 75X BAKE 150C	MM38510 2010 B MM38510	732: : 732:	: : 1.76E 04	: : 0:	: : 0:	: : :
				Q	TEMPCYC -065C 150C	MM38510	732:	:	:	0:	:
				Q	10CY	1010 C	:	:	:	:	:
				Q	CNSTACC 30KG 1 AXIS	MM38510	732:	:	:	14:	:
				Q	1 MIN E	2001 E	:	:	:	:	:
				Q	FINE LK HE 5.E-8	MM38510	718:	:	:	1:MFEF 1901/1	:
				Q	60 MIN	1014 A	:	:	:	:	:
				Q	GROSSLK FLUOR 125C	MM38510	717:	:	:	0:	:
				Q	3X	1014 C	:	:	:	:	:
				Q	EM 025C	MM38510	717:	:	:	0:	:
				Q	PAR EXC 125C	N.P.	:	:	:	:	:
				Q	S&D EM -055C 025C	MM38510	717:	1.20E 05	:	0:	:
				Q	125C	N.R.	:	:	:	31:	:
				Q	VIS INS 3X	MM38510	686:	:	:	0:	:
				Q	20X	2009	:	:	:	:	:
SIGNETICS 54H51	DIP 14	N -55/125	02/75	VIS INS Q	30X 75X BAKE 150C	MM38510 2010 B MM38510	502: : 502:	: : 1.20E 04	: : 0:	: : 0:	: : :
				Q	TEMPCYC -065C 150C	MM38510	502:	:	:	0:	:
				Q	10CY	1010 C	:	:	:	:	:
				Q	CNSTACC 30KG 1 AXIS	MM38510	502:	:	:	9:	:
				Q	1 MIN E	2001 E	:	:	:	:	:
				Q	FINE LK HE 5.E-8	MM38510	493:	:	:	77:MFEF 1902/77	:
				Q	60 MIN	1014 A	:	:	:	:	:
				Q	GROSSLK FLUOR 125C	MM38510	416:	:	:	19:MFEF 1903/19	:
				Q	3X	1014 C	:	:	:	:	:
				Q	EM 025C	MM38510	397:	:	:	0:	:
				Q	PAR EXC 125C	N.R.	:	:	:	:	:
				Q	S&D EM -055C 025C	MM38510	397:	6.67E 04	:	0:	:
				Q	125C	N.R.	:	:	:	:	:
				Q	VIS INS 3X	MM38510	395:	:	:	0:	:
				Q	20X	2009	:	:	:	:	:
SIGNETICS 8H70	DIP 14	N N.R.	05/76	VIS INS I	: S&F EM 025C 070C	N.R. N.R.	30: 30:	: :	: :	0: 0:	: :
				I	TEMPCYC -055C 125C	N.R.	:	:	:	0:	:
				I	5CY	MS-883 1010 B	30:	:	:	0:	:
				I	REVBIAIS 125C	N.R.	30:	5.0+E 03	:	0:	:
				I	S&F EM 070C	N.R.	30:	:	:	0:	:
				I	:	N.R.	:	:	:	:	:
T.I. 74H11	E-DIP 14	N.R. 0/70C	01/75	TEMPCYC I	-055C 125C 10CY	N.R.	87: 87:	: 2.09E 03	: 0:	0: 0:	: :
				I	REVBIAIS 100C	N.R.	:	:	:	:	:
				I	EM	N.R.	87:	:	:	1:	:
				I	:	N.R.	:	:	:	:	:
T.I. 74H21	E-DIP 14	N.R. 0/70C	11/75	SDF EM I	025C THRMSHK 000C 100C	N.R.	448: 448:	: :	: :	0: 0:	: :
				I	5CYC	N.R.	:	:	:	:	:
				I	REVBIAIS 100C	N.R.	448:	7.53E 04	:	0:	:
				I	SDF EM 025C	N.R.	448:	:	:	0:	:
				I	:	N.R.	:	:	:	:	:
T.I. 74H50	E-DIP 14	N.R. 0/70C	11/75	SDF EM I	025C THRMSHK 000C 100C	N.R.	73: 73:	: :	: :	0: 0:	: :
				I	5CYC	N.R.	:	:	:	:	:
				I	REVBIAIS 100C	N.R.	73:	1.23E 04	:	0:	:
				I	SDF EM 025C	N.R.	73:	:	:	0:	:
				I	:	N.R.	:	:	:	:	:

GATE

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE HIGH SPEED TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	//
T.I.		E-DIP	N.R.	11/75	SDF EM	025C		125:	0:		
74H55	14	0/70C	I	THRMSHK	000C	100C	N.R.	125:	0:		
			I	5CYC			N.R.	125:	0:		
			I	REVBIA	125C		N.R.	125: 2.10E 04	0:		
			I	SDF EM	025C		N.R.	125:	0:		
			I				N.R.				
VARIOUS	DIP	N	05/76	VIS INS			1679:		0:		
74H00	14	0/70C	I	S&F EM	025C	070C	N.R.	1679:	0:		
			I	THRMSHK	000C	100C	N.R.	1679:	0:		
			I	15CY			MS-883	1679:	0:		
			I	REVBIA	125C		1011 A	1679: 2.82E 05	0:		
			I	S&F EM	070C		N.R.	1679:	4:MFEF 1217/1,		
			I				N.R.		1218/2		
VARIOUS	DIP	N	12/76	VIS INS			514:		0:		
74H00	14	0/70C	I	S&F EM	025C	070C	N.R.	514:	0:		
			I	THRMSHK	000C	100C	N.R.	514:	0:		
			I	15CY			MS-883	514:	0:		
			I	REVBIA	125C		1011 A	514: 8.64E 04	0:		
			I	S&F EM	070C		N.R.	514:	1:MFEF 1219/1		
			I				N.R.				
VARIOUS	DIP	N	05/76	VIS INS			50:		0:		
74H01	14	0/70C	I	S&F EM	025C	070C	N.R.	50:	0:		
			I	THRMSHK	000C	100C	N.R.	50:	0:		
			I	15CY			MS-883	50:	0:		
			I	REVBIA	125C		1011 A	50: 8.40E 03	0:		
			I	S&F EM	070C		N.R.	50:	0:		
			I				N.R.				
VARIOUS	DIP	N	03/76	VIS INS			200:		0:		
74H08	14	0/70C	I	S&F EM	025C	070C	N.R.	200:	0:		
			I	THRMSHK	000C	100C	N.R.	200:	0:		
			I	15CY			MS-883	200:	0:		
			I	REVBIA	125C		1011 A	200: 3.36E 04	0:		
			I	S&F EM	070C		N.R.	200:	0:		
			I				N.R.				
VARIOUS	DIP	N	05/76	VIS INS			995:		0:		
74H08	14	0/70C	I	S&F EM	025C	070C	N.R.	995:	0:		
			I	THRMSHK	000C	100C	N.R.	995:	0:		
			I	15CY			MS-883	995:	0:		
			I	REVBIA	125C		1011 A	995: 1.67E 05	0:		
			I	S&F EM	070C		N.R.	995:	3:MFEF 1220/3		
			I				N.R.				
VARIOUS	DIP	N	09/76	VIS INS			500:		0:		
74H08	14	0/70C	I	S&F EM	025C	070C	N.R.	500:	0:		
			I	THRMSHK	000C	100C	N.R.	500:	0:		
			I	15CY			MS-883	500:	0:		
			I	REVBIA	125C		1011 A	500: 8.40E 04	0:		
			I	S&F EM	070C		N.R.	500:	0:		
			I				N.R.				

CATE

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE HIGH SPEED TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
VARIOUS 74H08	DIP 14	N 0/70C	09/76	VIS INS			568:		0:		
			I	S&F EM	025C 070C	N.R.	568:		0:		
			I	THRMSHK	000C 100C	N.R.	568:		0:		
			I	15CY		MS-883 1011 A	568:		0:		
			I	REVBIA	125C		568:	9.54E 04	0:		
			I	S&F EM	070C	N.R.	568:		0:		
			I			N.R.					
VARIOUS 74H08	DIP 14	N 0/70C	10/76	VIS INS			82:		0:		
			I	S&F EM	025C 070C	N.R.	82:		0:		
			I	THRMSHK	000C 100C	N.R.	82:		0:		
			I	15CY		MS-883 1011 A	82:		0:		
			I	REVBIA	125C		82:	1.38E 04	0:		
			I	S&F EM	070C	N.R.	82:		0:		
			I			N.R.					
VARIOUS 74H08	DIP 14	N 0/70C	11/76	VIS INS			250:		0:		
			I	S&F EM	025C 070C	N.R.	250:		0:		
			I	THRMSHK	000C 100C	N.R.	250:		0:		
			I	15CY		MS-883 1011 A	250:		0:		
			I	REVBIA	125C		250:	4.20E 04	0:		
			I	S&F EM	070C	N.R.	250:		0:		
			I			N.R.					
VARIOUS 74H08	DIP 14	N 0/70C	12/76	VIS INS			400:		0:		
			I	S&F EM	025C 070C	N.R.	400:		0:		
			I	THRMSHK	000C 100C	N.R.	400:		0:		
			I	15CY		MS-883 1011 A	400:		0:		
			I	REVBIA	125C		400:	6.72E 04	0:		
			I	S&F EM	070C	N.R.	400:		0:		
			I			N.R.					
VARIOUS 74H10	DIP 14	N 0/70C	05/76	VIS INS			25:		0:		
			I	S&F EM	025C 070C	N.R.	25:		0:		
			I	THRMSHK	000C 100C	N.R.	25:		0:		
			I	15CY		MS-883 1011 A	25:		0:		
			I	REVBIA	125C		25:	4.20E 03	0:		
			I	S&F EM	070C	N.R.	25:		0:		
			I			N.R.					
VARIOUS 74H11	DIP 14	N 0/70C	12/76	VIS INS			1200:		0:		
			I	S&F EM	025C 070C	N.R.	1200:		0:		
			I	THRMSHK	000C 100C	N.R.	1200:		0:		
			I	15CY		MS-883 1011 A	1200:		0:		
			I	REVBIA	125C		1200:	2.02E 05	0:		
			I	S&F EM	070C	N.R.	1200:		0:		
			I			N.R.					
VARIOUS 74H20	DIP 14	N 0/70C	12/76	VIS INS			747:		0:		
			I	S&F EM	025C 070C	N.R.	747:		0:		
			I	THRMSHK	000C 100C	N.R.	747:		0:		
			I	15CY		MS-883 1011 A	747:		0:		
			I	REVBIA	125C		747:	1.25E 05	0:		
			I	S&F EM	070C	N.R.	747:		0:		
			I			N.R.					

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEFICE HOURS	NO. FLD	FAILURE SUMMARY	#
VARIOUS 74H20	DIP : N 14 : 0/70C	06/76	VIS INS	I	S&F EM : 025C 070C	N.R.	600:		0:		
				I	THRMSHK : 000C 100C	MS-883	600:		0:		
				I	15CY	1011 A	600:	1.01E 05	0:		
				I	REVBIA : 125C	N.R.	600:			1:MFEF 1222/1	
				I	S&F EM : 070C	N.R.	600:				
VARIOUS 74H20	DIP : N 14 : 0/70C	09/76	VIS INS	I	S&F EM : 025C 070C	N.R.	400:		0:		
				I	THRMSHK : 000C 100C	MS-883	400:		0:		
				I	15CY	1011 A	400:	6.72E 04	0:		
				I	REVBIA : 125C	N.R.	400:			1:MFEF 1223/1	
				I	S&F EM : 070C	N.R.	400:				
VARIOUS 74H20	DIP : N 14 : 0/70C	12/76	VIS INS	I	S&F EM : 025C 070C	N.R.	100:		0:		
				I	THRMSHK : 000C 100C	MS-883	100:		0:		
				I	15CY	1011 A	100:	1.68E 04	0:		
				I	REVBIA : 125C	N.R.	100:				
				I	S&F EM : 070C	N.R.	100:		0:		
VARIOUS 74H20	DIP : N 14 : 0/70C	12/76	VIS INS	I	S&F EM : 025C 070C	N.R.	100:		0:		
				I	THRMSHK : 000C 100C	MS-883	100:		0:		
				I	15CY	1011 A	100:	1.68E 04	0:		
				I	REVBIA : 125C	N.R.	100:				
				I	S&F EM : 070C	N.R.	100:		0:		
VARIOUS 74H21	DIP : N 14 : 0/70C	05/76	VIS INS	I	S&F EM : 025C 070C	N.R.	25:		0:		
				I	THRMSHK : 000C 100C	MS-883	25:		0:		
				I	15CY	1011 A	25:	4.20E 03	0:		
				I	REVBIA : 125C	N.R.	25:			1:MFEF 1224/1	
				I	S&F EM : 070C	N.R.	25:				
VARIOUS 74H22	DIP : N 14 : 0/70C	03/76	VIS INS	I	S&F EM : 025C 070C	N.R.	335:		0:		
				I	THRMSHK : 000C 100C	MS-883	335:		0:		
				I	15CY	1011 A	335:	5.63E 04	0:		
				I	REVBIA : 125C	N.R.	335:			3:MFEF 1225/3	
				I	S&F EM : 070C	N.R.	335:				
VARIOUS 74H22	DIP : N 14 : 0/70C	05/76	VIS INS	I	S&F EM : 025C 070C	N.R.	418:		0:		
				I	THRMSHK : 000C 100C	MS-883	418:		0:		
				I	15CY	1011 A	418:	7.02E 04	0:		
				I	REVBIA : 125C	N.R.	418:			16:MFEF 1226/15, 1227/1	
				I	S&F EM : 070C	N.R.	418:				

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
VARIOUS 74H22	DIP : N 14 : 0/70C		05/76	VIS INS			350:		0:		
			I	S&F EM	025C 070C	N.R.	350:		0:		
			I	THRMSHK	000C 100C	N.R.	350:		0:		
			I	15CY		MS-883 1011 A	350:		0:		
			I	REVBIA	125C		350:	5.88E 04	0:		
			I	S&F EM	070C	N.R.	350:		0:		
			I			N.R.					
VARIOUS 74H22	DIP : N 14 : 0/70C		12/76	VIS INS			69:		0:		
			I	S&F EM	025C 070C	N.R.	69:		0:		
			I	THRMSHK	000C 100C	N.R.	69:		0:		
			I	15CY		MS-883 1011 A	69:		0:		
			I	REVBIA	125C		69:	1.16E 04	0:		
			I	S&F EM	070C	N.R.	69:		0:		
			I			N.R.				3:MFEF 1228/3	
VARIOUS 74H30	DIP : N 14 : 0/70C		09/76	VIS INS			120:		0:		
			I	S&F EM	025C 070C	N.R.	120:		0:		
			I	THRMSHK	000C 100C	N.R.	120:		0:		
			I	15CY		MS-883 1011 A	120:		0:		
			I	REVBIA	125C		120:	2.02E 04	0:		
			I	S&F EM	070C	N.R.	120:		0:		
			I			N.R.				4:MFEF 1229/4	
VARIOUS 74H51	DIP : N 14 : 0/70C		02/76	VIS INS			50:		0:		
			I	S&F EM	025C 070C	N.R.	50:		0:		
			I	THRMSHK	000C 100C	N.R.	50:		0:		
			I	15CY		MS-883 1011 A	50:		0:		
			I	REVBIA	125C		50:	8.40E 03	0:		
			I	S&F EM	070C	N.R.	50:		0:		
			I			N.R.					
VARIOUS 74H51	DIP : N 14 : 0/70C		10/76	VIS INS			400:		0:		
			I	S&F EM	025C 070C	N.R.	400:		0:		
			I	THRMSHK	000C 100C	N.R.	400:		0:		
			I	15CY		MS-883 1011 A	400:		0:		
			I	REVBIA	125C		400:	6.72E 04	0:		
			I	S&F EM	070C	N.R.	400:		0:		
			I			N.R.					
VARIOUS 74H52	DIP : N 14 : 0/70C		05/76	VIS INS			25:		0:		
			I	S&F EM	025C 070C	N.R.	25:		0:		
			I	THRMSHK	000C 100C	N.R.	25:		0:		
			I	15CY		MS-883 1011 A	25:		0:		
			I	REVBIA	125C		25:	4.20E 03	0:		
			I	S&F EM	070C	N.R.	25:		0:		
			I			N.R.					
VARIOUS 74H54	DIP : N 14 : 0/70C		02/76	VIS INS			150:		0:		
			I	S&F EM	025C 070C	N.R.	150:		0:		
			I	THRMSHK	000C 100C	N.R.	150:		0:		
			I	15CY		MS-883 1011 A	150:		0:		
			I	REVBIA	125C		150:	2.52E 04	0:		
			I	S&F EM	070C	N.R.	150:		0:		
			I			N.R.				30:	

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 74H54	DIP 14	N 0/70C	10/76	VIS INS I			500:		0:	
				S&F EM	025C 070C	N.R.	500:		0:	
				I		N.R.	500:		0:	
				THRMSHK	000C 100C	MS-883	500:		0:	
				I	15CY	1011 A	500:	8.40E 04	0:	
				REVBIA	125C	N.R.	500:		0:	
				I		N.R.	500:		4:MFEF 1230/4	
				S&F EM	070C	N.R.	500:			
VARIOUS 74H55	DIP 14	N.R. 0/70C	11/75	SDF EM I	025C		137:		0:	
				I		N.R.	137:		0:	
				THRMSHK	000C 100C	N.R.	137:	2.30E 04	0:	
				I	15CY	N.R.	137:		0:	
				REVBIA	100C	N.R.	137:		0:	
				I		N.R.	137:		0:	
				SDF EM	025C	N.R.	137:		0:	
VARIOUS 74H55	DIP 14	N 0/70C	08/76	VIS INS I			99:		0:	
				S&F EM	025C 070C	N.R.	99:		0:	
				I		N.R.	99:		0:	
				THRMSHK	100C	MS-883	99:		0:	
				I	15CY	1011 A	99:	1.66E 04	0:	
				REVBIA	125C	N.R.	99:		0:	
				I		N.R.	99:		0:	
				S&F EM	070C	N.R.	99:		0:	
VARIOUS 74H55	DIP 14	N 0/70C	12/76	VIS INS I			98:		0:	
				S&F EM	025C 070C	N.R.	98:		0:	
				I		N.R.	98:		0:	
				THRMSHK	000C 100C	MS-883	98:		0:	
				I	15CY	1011 A	98:	1.65E 04	0:	
				REVBIA	125C	N.R.	98:		0:	
				I		N.R.	98:		0:	
				S&F EM	070C	N.R.	98:		0:	
VARIOUS 74H55	DIP 14	N 0/70C	12/76	VIS INS I			361:		0:	
				S&F EM	025C 070C	N.R.	361:		0:	
				I		N.R.	361:		0:	
				THRMSHK	000C 100C	MS-883	361:		0:	
				I	15CY	1011 A	361:	6.06E 04	0:	
				REVBIA	125C	N.R.	361:		0:	
				I		N.R.	361:		2:MFEF 1231/2	
				S&F EM	070C	N.R.	361:			

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SIGNETICS 74LS08	E-DIP 14	N.R. 0/70C	11/75	SDF EM I	025C		6554:		21:	
				I		N.R.	6533:		0:	
				THRMSHK	000C 100C	N.R.	6533:		0:	
				I	15CY	N.R.	6533:	1.10E 06	0:	
				REVBIA	100C	N.R.	6533:		0:	
				I		N.R.	6533:		10:	
				SDF EM	025C	N.R.	6533:			
T.I. 74LS00	E-DIP 14	N.R. 0/70C	11/75	SDF EM I	025C		38364:		110:	
				I		N.R.	38254:		0:	
				THRMSHK	000C 100C	N.R.	38254:		0:	
				I	15CY	N.R.	38254:	6.43E 06	0:	
				REVBIA	100C	N.R.	38254:		0:	
				I		N.R.	38254:		213:	
				SDF EM	025C	N.R.	38254:			

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SER CL/ TMP RVS	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
T-1.	E-DIP	N.R.	11/75	SDF	025C		875		4	
74LS02	14	0/70C	I	THRMSHV	000C 100C	N.R.	871		0	
			I	5CYC		N.R.				
			I	REVBias	100C	N.R.	871	1.46E 05	0	
			I	SDF EM	025C	N.R.	871		1	
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF FM	025C		131		29	
74LS00	14	0/70C	I	THRMSHV	000C 100C	N.R.	1282		0	
			I	5CYC		N.R.				
			I	REVBias	100C	N.R.	1282	2.05E 05	0	
			I	SDF EM	025C	N.R.	1282		10	
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			1120		0	
74LS00	14	0/70C	I	S&F EM	025C 070C	N.R.	1120		0	
			I	THRMSHV	000C 100C	N.R.				
			I	5CYC		MS-883	1120		0	
			I	REVBias	125C	1011 A	1120	2.02E 05	0	
			I	S&F EM	070C	N.R.	1120		27	MEF 1232/27
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			1000		0	
74LS00	14	0/70C	I	S&F EM	025C 070C	N.R.	1000		0	
			I	THRMSHV	000C 100C	N.R.				
			I	5CYC		MS-883	1000		0	
			I	REVBias	125C	1011 A	1000	1.48E 05	0	
			I	S&F EM	070C	N.R.	1000		6	MEF 1233/6
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			529		0	
74LS00	14	0/70C	I	S&F EM	025C 070C	N.R.	529		0	
			I	THRMSHV	000C 100C	N.R.				
			I	5CYC		MS-883	529		0	
			I	REVBias	125C	1011 A	529	3.89E 04	0	
			I	S&F EM	070C	N.R.	529		0	
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			1260		0	
74LS02	14	0/70C	I	S&F EM	025C 070C	N.R.	1260		0	
			I	THRMSHV	000C 100C	N.R.				
			I	5CYC		MS-883	1260		0	
			I	REVBias	125C	1011 A	1260	2.17E 05	0	
			I	S&F EM	070C	N.R.	1260		4	MEF 1234/1, 1235/2
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			350		0	
74LS03	14	0/70C	I	S&F EM	025C 070C	N.R.	350		0	
			I	THRMSHV	000C 100C	N.R.				
			I	5CYC		MS-883	350		0	
			I	REVBias	125C	1011 A	350	2.40E 05	0	
			I	S&F EM	070C	N.R.	350		0	
			I			N.R.				

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/
VARIOUS 74LS08	DIP 14	N 0/70C	09/76 I	VIS INS S&F EM	025C 070C	N.R.	1385		0		
			I	THRMSHK	000C 100C	N.R.	1385		0		
			I	15CY		MS-883 1011 A	1385		0		
			I	REVBIA	125C	N.R.	1385	2.33E 05	0		
			I	S&F EM	070C	N.R.	1385		4:MFEF 1236/4		
VARIOUS 74LS08	DIP 14	N 0/70C	09/76 I	VIS INS S&F EM	025C 070C	N.R.	615		0		
			I	THRMSHK	000C 100C	N.R.	615		0		
			I	15CY		MS-883 1011 A	615		0		
			I	REVBIA	125C	N.R.	615	1.03E 05	0		
			I	S&F EM	070C	N.R.	615		0		
VARIOUS 74LS08	DIP 14	N 0/70C	09/76 I	VIS INS S&F EM	025C 070C	N.R.	1300		0		
			I	THRMSHK	000C 100C	N.R.	1300		0		
			I	15CY		MS-883 1011 A	1300		0		
			I	REVBIA	125C	N.R.	1300	2.18E 05	0		
			I	S&F EM	070C	N.R.	1300		3:MFEF 1237/3		
VARIOUS 74LS20	DIP 14	N 0/70C	07/76 I	VIS INS S&F EM	025C 070C	N.R.	259		0		
			I	TPRMSHK	000C 100C	N.R.	259		0		
			I	15CY		MS-883 1011 A	259		0		
			I	REVBIA	125C	N.R.	259	4.35E 04	0		
			I	S&F EM	070C	N.R.	259		1:MFEF 1238/1		
VARIOUS 74LS27	DIP 14	N 0/70C	09/76 I	VIS INS S&F EM	025C 070C	N.R.	455		0		
			I	TPRMSHK	000C 100C	N.R.	455		0		
			I	15CY		MS-883 1011 A	455		0		
			I	REVBIA	125C	N.R.	455	7.64E 04	0		
			I	S&F EM	070C	N.R.	455		0		
VARIOUS 74LS30	DIP 14	N 0/70C	09/76 I	VIS INS S&F EM	025C 070C	N.R.	105		0		
			I	TPRMSHK	000C 100C	N.R.	105		0		
			I	15CY		MS-883 1011 A	105		0		
			I	REVBIA	125C	N.R.	105	1.76E 04	0		
			I	S&F EM	070C	N.R.	105		0		
VARIOUS 74LS32	DIP 14	N 0/70C	09/76 I	VIS INS S&F EM	025C 070C	N.R.	1000		0		
			I	TPRMSHK	000C 100C	N.R.	1000		0		
			I	15CY		MS-883 1011 A	1000		0		
			I	REVBIA	125C	N.R.	1000	1.66E 05	0		
			I	S&F EM	070C	N.R.	1000		24:MFEF 1239/24		

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 74LS32	DIP : N 14	: 0/70C	: 09/79	: VIS INS			: 800:		: 0:	
			: I	: S&F EM	: 025C 070C	: N.R.	: 800:		: 0:	
			: I	: THRM SHK	: 000C 100C	: N.R.	: 800:		: 0:	
			: I	: 15CY		: MS-883 1011 A	: 800:		: 0:	
			: I	: REVBIAS	: 125C		: 890:	1.34E 05	: 0:	
			: I	: S&F FM	: 070C	: N.R.	: 800:		: 6:MFEF 12-0/6	
			: I			: N.R.				
VARIOUS 74LS86	DIP : N 14	: 0/70C	: 08/76	: VIS INS			: 250:		: 0:	
			: I	: S&F EM	: 025C 070C	: N.R.	: 250:		: 0:	
			: I	: THRM SHK	: 000C 100C	: N.R.	: 250:		: 0:	
			: I	: 15CY		: MS-883 1011 A	: 250:		: 0:	
			: I	: REVBIAS	: 125C		: 250:	4.20E 04	: 0:	
			: I	: S&F EM	: 070C	: N.R.	: 250:		: 4:MFEF 12-1/4	
			: I			: N.R.				

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD 7400	E-DIP : N 14	: 0/70C	: 11/75	: SDF EM	: 025C		: 500C:		: 19:	
			: I	: THRM SHK	: 000C 100C	: N.R.	: 4981:		: 0:	
			: I	: 15CY		: N.R.	: 4981:		: 0:	
			: I	: REVBIAS	: 100C		: 4981:	8.37E 05	: 0:	
			: I	: SDF EM	: 025C		: 4981:		: 11:	
ITT 5420	DIP : JB 14	: -55/125	: 05/75	: VIS INS			: 160:		: 0:	
			: Q	: BAKE	: 150C	: N.R.	: 100:	2.40E 03	: 0:	
			: Q	: TEMPCYC	: -065C 150C	: MS-883 1008 C	: 100:		: 0:	
			: Q	: 10CY		: MS-883 1010 C	: 100:		: 0:	
			: Q	: CNSTACC	: 30KG 1 AXIS	: MS-883 2001 E	: 100:		: 0:	
			: Q	: FINE LK	: HE 5-E-7	: MS-883 1014 A	: 100:		: 0:	
			: Q	: GROSSLE	: FLUCR 125C	: MS-883 1014 C	: 100:		: 0:	
			: Q	: S&D EM	: 025C	: N.R.	: 100:		: 0:	
			: Q	: REVBIAS	: 125C	: MS-883 1015 A	: 100:	1.68E 04	: 0:	
			: Q	: S&D EM	: 025C		: 100:		: 0:	
			: Q	: S&D EM	: 125C	: N.R.	: 160:		: 0:	
			: Q	: S&D EM	: -055C	: N.R.	: 100:		: 0:	
ITT 7400	E-DIP : N 14	: 0/70C	: 05/77	: BAKE	: 150C	: MS-883 1008 C	: 495:	1.19E 04	: 0:	
			: Q	: TEMPCYC	: -065C 150C	: MS-883 1010 C	: 495:		: 0:	
			: Q	: 10CY		: MS-883 2001 E	: 495:		: 0:	
			: Q	: CNSTACC	: 30KG 1 AXIS	: MS-883 1014 A	: 495:		: 0:	
			: Q	: D&F EM	: 025C	: MS-883 1015 D	: 495:	7.18E 04	: 0:	
			: Q	: PAR EXC	: 125C	: MS-883	: 449:		: 94:	
			: Q	: D&F EM	: 025C 125C	: MS-883	: 449:		: 0:	
			: Q	: -055C		: N.R.	: 355:		: 0:	
			: Q	: VIS INS	: 3X	: MS-883 2009			: 0:	
			: Q	: 16X						

CATE

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/ PART NO	SCR CL/ TAP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	1/
ITT	7400	E-DIP 14	X 0/70C	05/77	THRMSHK	-065C 150C	MS-883	50:	0:		
				Q	15CY	1011 C					
					S&F EM	025C 125C	MS-883	50:	0:		
				Q	-055C	N.R.					
					MOIST	-010C 065C	MS-883	50:	0:		
				Q	98ZRH	1004					
					S&F EM	025C 125C	MS-883	50:	1:MFEF 1748/1		
				Q	-055C	N.R.					
					PAR EXC	005C	MS-883X	49: 4.90E 04	0:		
				Q		1005 D					
					S&F EM	025C 125C	MS-883	49:	0:		
				Q	-055C	N.R.					
					PAR EXC	-055C	MS-883	49: 4.90E 04	0:		
				Q		1005 D					
					S&F EM	025C 125C	MS-883	49:	0:		
				Q	-055C	N.R.					
ITT	7400	E-DIP 14	X 0/70C	05/77	TEMPCYC	-055C 125C	MS-883	50:	0:		
				Q	1000CY	1010 B					
					S&F EM	025C 125C	MS-883	50:	0:		
				Q	-055C	N.R.					
					LOPRESS	1.09T 025C	MS-883	50: 2.40E 03	0:		
				Q		1001 F					
					S&F EM	025C 125C	MS-883	50:	0:		
				Q	-055C	N.R.					
					PAR FXC	005C	MS-883X	50: 5.00E 04	0:		
				Q		1005 D					
					S&F EM	025C 125C	MS-883	50:	0:		
				Q	-055C	N.R.					
					PAP EXC	125C	MS-883	50: 5.00E 04	0:		
				Q		1005 D					
					S&F EM	025C 125C	MS-883	50:	0:		
				Q	-055C	N.R.					
MOTOROLA	5420	DIP 14	X -55/125	03/75	S&D EM	025C		125:	0:		
				Q		N.R.					
					AUTOCLV	15PSIGSTEAM		125:	0:		
				Q		N.R.					
					S&D EM	025C		125:	3:MFEF 1749/3		
				Q		N.R.					
					THRMSHK	000C 100C	MS-883	122:	0:		
				Q	5CY	1011 A					
					S&D EM	025C		122:	0:		
				Q		N.R.					
					REVBIA5	125C	MS-883	122: 1.17E 04	0:		
				Q		1015 A					
					S&D EM	025C		122:	1:MFEF 1750/1		
				Q		N.R.					
NATIONAL	5400	E-DIP 14	X -55/125	05/77	BAKE	150C	MS-883	495: 1.19E 04	0:		
				Q		1008 C					
					TEMPCYC	-065C 150C	MS-883	495:	0:		
				Q	10CY	1010 C					
					CNSTACC	30KG 1 AXIS	MS-883	495:	0:		
				Q	1 MIN E	2001 E					
					D&F EM	025C	MS-883	495:	6:		
				Q		N.R.					
					PAR EXC	125C	MS-883	489: 7.82E 04	0:		
				Q		1015 D					
					D&F EM	025C 125C	MS-883	489:	76:		
				Q	-055C	N.R.					
					VIS INS	3X	MS-883	413:	0:		
				Q	10X	2009					
NATIONAL	5400	E-DIP 14	X -55/125	05/77	THRMSHK	-065C 150C	MS-883	50:	0:		
				Q	15CY	1011 C					
					S&F EM	025C 125C	MS-883	50:	0:		
				Q	-055C	N.R.					
					MOIST	-010C 065C	MS-883	50:	0:		
				Q	98ZRH	1004					
					S&F EM	025C 125C	MS-883	50:	0:		
				Q	-055C	N.R.					
					PAR EXC	005C	MS-883X	50: 5.00E 04	0:		
				Q		1005 D					
					S&F EM	025C 125C	MS-883	50:	0:		
				Q	-055C	N.R.					
					PAR EXC	-055C	MS-883	50: 5.00E 04	0:		
				Q		1005 D					
					S&F EM	025C 125C	MS-883	50:	0:		
				Q	-055C	N.R.					

GATE

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	D.TE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
NATIONAL 5400	E-DIP 14	X -55/125	05/77	TEMPCYC	-055C 125C	MS-883	50:		0:		
				Q	1000CY	1010 B					
				S&F EM	025C 125C	MS-883	50:		0:		
				Q	-055C	N.R.					
				LOPRESS	1.09T 025C	MS-883	50:	2.40E 03	0:		
				Q		1001 F					
				S&F EM	025C 125C	MS-883	50:		0:		
				Q	-055C	N.R.					
				PAR EXC	005C	MS-883X	50:	5.00E 04	0:		
				Q		1005 D					
				S&F EM	025C 125C	MS-883	50:		0:		
				Q	-055C	N.R.					
				PAR EXC	125C	MS-883	50:	5.00E 04	0:		
				Q		1005 D					
NATIONAL 7411	E-DIP 14	N.R. 0/70C	11/75	SDF EM	025C		3150:		6:		
				I		N.R.					
				THRM SHK	000C 100C		3144:		0:		
				I	5CYC	N.R.					
				REVBIAS	100C		3144:	5.28E 05	0:		
				I		N.R.					
NATIONAL 7413	E-DIP 14	N.R. 0/70C	11/75	SDF EM	025C		3144:		24:		
				I		N.R.					
				THRM SHK	000C 100C		162:		8:		
				I	5CYC	N.R.					
				REVBIAS	100C		154:	2.59E 04	0:		
				I		N.R.					
SIGNETICS 5400	E-DIP 14	N -55/125	05/77	BAKE	150C	MS-883	495:	1.19E 04	0:		
				Q		1008 C					
				TEMPCYC	-065C 150C	MS-883	495:		0:		
				Q	10CY	1010 C					
				CNSTACC	30KG 1 AXIS	MS-883	495:		0:		
				Q	1 MIN E	2001 E					
				D&F EM	025C	MS-883	495:		8:		
				Q		N.R.					
				PAR EXC	125C	MS-883	487:	7.79E 04	0:		
				Q		1015 D					
				D&F EM	025C 125C	MS-883	487:		111:		
				Q	-055C	N.R.					
				VIS INS	3X	MS-883	375:		0:		
				Q	10X	2009					
SIGNETICS 5400	E-DIP 14	X -55/125	05/77	THRM SHK	-065C 150C	MS-883	50:		0:		
				Q	15CY	1011 C					
				S&F EM	025C 125C	MS-883	50:		0:		
				Q	-055C	N.R.					
				MOIST	-010C 065C	MS-883	50:		0:		
				Q	982RH	1004					
				S&F EM	025C 125C	MS-883	50:		0:		
				Q	-055C	N.R.					
				PAR EXC	005C	MS-883X	50:	5.00E 04	0:		
				Q		1005 D					
				S&F EM	025C 125C	MS-883	50:		0:		
				Q	-055C	N.R.					
				PAR EXC	-055C	MS-883	50:	5.00E 04	0:		
				Q		1005 D					
SIGNETICS 5400	E-DIP 14	X -55/125	05/77	TEMPCYC	-055C 125C	MS-883	50:		0:		
				Q	1000CY	1010 B					
				S&F EM	025C 125C	MS-883	50:		0:		
				Q	-055C	N.R.					
				LOPRESS	1.09T 025C	MS-883	50:	2.40E 03	0:		
				Q		1001 F					
				S&F EM	025C 125C	MS-883	50:		0:		
				Q	-055C	N.R.					
				PAR EXC	005C	MS-883X	50:	5.00E 04	0:		
				Q		1005 D					
				S&F EM	025C 125C	MS-883	50:		0:		
				Q	-055C	N.R.					
				PAR EXC	125C	MS-883	50:	5.00E 04	0:		
				Q		1005 D					
				S&F EM	025C 125C	MS-883	50:		0:		

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	10
SIGNETICS 5450	DIP 14	N -55/125	05/75	VIS INS Q	30X 75X 150C	MM38510 2010 B MM38510	359		0		
				BAKE Q	150C	MM38510 1008 C	359	8.62E 03	0		
				TEMP CYC Q	-065C 150C 10CY	MM38510 1010 C	359		0		
				CNST ACC Q	30KG 1 AXIS 1 MIN E	MM38510 2001 E	359		5		
				FINE LK Q	HE 5-L-8 60 MIN	MM38510 1014 A	354		1		
				CROSS LK Q	FLUOR 125C 3X	MM38510 1014 C	353		2		
				EM Q	025C	MM38510 N.R.	351		0		
				PAR EXC Q	125C	MM38510 1015 D	351	5.90E 04	0		
				S&D EM Q	-055C 025C 125C	MM38510 N.R.	351		5		
				VIS INS Q	3X 20X	MM38510 2009	346		1		
SIGNETICS 5451	DIP 14	N -55/125	07/75	VIS INS Q	30X 75X 150C	MM38510 2010 B MM38510	749		0		
				BAKE Q	150C	MM38510 1008 C	749	1.80E 04	0		
				TEMP CYC Q	-065C 150C 10CY	MM38510 1010 C	749		0		
				CNST ACC Q	30KG 1 AXIS 1 MIN E	MM38510 2001 E	749		26		
				FINE LK Q	HE 5-E-8 60 MIN	MM38510 1014 A	723		3		
				CROSS LK Q	FLUOR 125C 3X	MM38510 1014 C	720		9		
				EM Q	025C	MM38510 N.R.	711		0		
				PAR EXC Q	125C	MM38510 1015 D	711	1.19E 05	0		
				S&D EM Q	-055C 025C 125C	MM38510 N.R.	711		10		
				VIS INS Q	3X 20X	MM38510 2009	701		0		
SIGNETICS 7400	E-DIP 14	N.R. 0/70C	11/75	SDF EM I	025C	N.R.	652		19		
				THRM SHK I	000C 100C	N.R.	633		0		
				REVBIAS I	100C	N.R.	633	1.06E 05	0		
				SDF EM I	025C	N.R.	633		2		
SIGNETICS 7408	E-DIP 14	N.R. 0/70C	11/75	SDF EM I	025C	N.R.	21793		221		
				THRM SHK I	000C 100C	N.R.	21572		0		
				REVBIAS I	100C	N.R.	21572	3.62E 06	0		
				SDF EM I	025C	N.R.	21572		53		
SIGNETICS 7409	E-DIP 14	N.R. 0/70C	11/75	SDF EM I	025C	N.R.	4055		26		
				THRM SHK I	000C 100C	N.R.	4029		9		
				REVBIAS I	100C	N.R.	4029	6.77E 05	0		
				SDF EM I	025C	N.R.	4029		10		
SIGNETICS 7410	E-DIP 14	N.R. 0/70C	11/75	SDF EM I	025C	N.R.	6097		93		
				THRM SHK I	000C 100C	N.R.	6004		0		
				REVBIAS I	100C	N.R.	6004	1.01E 06	0		
				SDF EM I	025C	N.R.	6004		20		

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TEMP	RNG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	:025C			495:		73:	
7411	14	0/70C	I	TPRMSHK	:000C	100C	N.R.	422:		0:	
			I	SCYC	:100C		N.R.	422:	7.09E 04	0:	
			I	REVBIA	:100C		N.R.	422:		3:	
			I	SDF EM	:025C		N.R.				
			I								
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	:025C			4659:		86:	
74132	14	0/70C	I	TPRMSHK	:000C	100C	N.R.	4582:		0:	
			I	SCYC	:100C		N.R.	4582:	7.70E 05	0:	
			I	REVBIA	:100C		N.R.	4582:		16:	
			I	SDF EM	:025C		N.R.				
			I								
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	:025C			1700:		13:	
7413	14	0/70C	I	TPRMSHK	:000C	100C	N.R.	1687:		0:	
			I	SCYC	:100C		N.R.	1687:	2.83E 05	0:	
			I	REVBIA	:100C		N.R.	1687:		2:	
			I	SDF EM	:025C		N.R.				
			I								
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	:025C			3400:		48:	
7420	14	0/70C	I	TPRMSHK	:000C	100C	N.R.	3352:		0:	
			I	SCYC	:100C		N.R.	3352:	5.63E 05	0:	
			I	REVBIA	:100C		N.R.	3352:		9:	
			I	SDF EM	:025C		N.R.				
			I								
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	:025C			812:		7:	
7421	14	0/70C	I	TPRMSHK	:000C	100C	N.R.	805:		0:	
			I	SCYC	:100C		N.R.	805:	1.35E 05	0:	
			I	REVBIA	:100C		N.R.	805:		0:	
			I	SDF EM	:025C		N.R.				
			I								
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	:025C			1385:		11:	
7430	14	0/70C	I	TPRMSHK	:000C	100C	N.R.	1374:		0:	
			I	SCYC	:100C		N.R.	1374:	2.31E 05	0:	
			I	REVBIA	:100C		N.R.	1374:		9:	
			I	SDF EM	:025C		N.R.				
			I								
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	:025C			1498:		3:	
7430	14	0/70C	I	TPRMSHK	:000C	100C	N.R.	1495:		0:	
			I	SCYC	:100C		N.R.	1495:	2.51E 05	0:	
			I	REVBIA	:100C		N.R.	1495:		3:	
			I	SDF EM	:025C		N.R.				
			I								
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	:025C			2953:		13:	
7451	14	0/70C	I	TPRMSHK	:000C	100C	N.R.	2950:		0:	
			I	SCYC	:100C		N.R.	2950:	4.96E 05	0:	
			I	REVBIA	:100C		N.R.	2950:		11:	
			I	SDF EM	:025C		N.R.				
			I								
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	:025C			268:		1:	
7454	14	0/70C	I	TPRMSHK	:000C	100C	N.R.	267:		0:	
			I	SCYC	:100C		N.R.	267:	4.49E 04	0:	
			I	REVBIA	:100C		N.R.	267:		1:	
			I	SDF EM	:025C		N.R.				
			I								

CATE ENVIRONMENTAL BURN-IN RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR			OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PIPS	TMP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	025C		234:		3:	
7486	14	0/70C	I	THRMSHK	000C 100C	N.R.	231:		0:	
			I	REVBIA	100C	N.R.	231:	3.88E 04	0:	
			I	SDF EM	025C	N.R.	231:		0:	
			I			N.R.				
SIGNFTICS	E-DIP	N.R.	11/75	REVBIA	100C		650:	1.09E 05	0:	
8815	14	0/70C	I	SDF EM	025C	N.R.	650:		3:	
			I			N.R.				
SIGNETICS	E-DIP	N	05/76	VIS INS			25:		0:	
8815	14	0/70C	I	S&F EM	025C 070C	N.R.	25:		0:	
			I	THRMSHK	000C 100C	MS-883	25:		0:	
			I	15CY		1011 A	25:	4.20E 03	0:	
			I	REVBIA	125C	N.R.	25:		0:	
			I	S&F EM	070C	N.R.	25:		0:	
			I			N.R.				
T.I.	DIP	B-1	05/75	VIS INS			100:		2:	
5420	14	-55/125	Q	BAKE	150C	MS-883	98:	2.35E 03	0:	
			Q	TFMPCYC	-065C 150C	MS-883 C	98:		0:	
			Q	10CY		1010 C	98:		0:	
			Q	CNSTACC	30KG 1 AXIS	MS-883	98:		0:	
			Q	1 MIN E		2001 E	98:		0:	
			Q	NE LK	HE 5.E-7	MS-883	98:		0:	
			Q	60 MIN		1014 A	98:		0:	
			Q	CROSS LK	FLUOP 125C	MS-883	98:		0:	
			Q	3X		1014 C	98:		0:	
			Q	S&D EM	025C	N.R.	98:		1:MFEP 1782/1	
			Q	REVBIA	125C	MS-883	97:	1.63E 04	0:	
			Q			1015 A	97:		0:	
			Q	S&D EM	025C	N.R.	97:		0:	
			Q	S&D EM	125C	N.R.	97:		0:	
			Q	S&D EM	-055C	N.R.	97:		0:	
			Q			N.R.				
T.I.	E-DIP	N	05/77	BAKE	150C	MS-883	495:	1.19E 04	0:	
7400	14	0/70C	Q	TEMPCYC	-065C 150C	MS-883 C	495:		0:	
			Q	10CY		1010 C	495:		0:	
			Q	CNSTACC	30KG 1 AXIS	MS-883	495:		0:	
			Q	1 MIN E		2001 E	495:		0:	
			Q	D&F EM	025C	MS-883	495:		0:	
			Q	PAR EXC	125C	N.R.	489:	7.82E 04	0:	
			Q	D&F EM	025C 125C	MS-883	469:		93:	
			Q	-055C		N.R.				
			Q	VIS INS	3X	MS-883	396:		0:	
			Q	10X		2009				
T.I.	E-DIP	N	05/77	THRMSHK	-065C 150C	MS-883	50:		0:	
7400	14	0/70C	Q	15CY		1011 C	50:		0:	
			Q	S&F EM	025C 125C	MS-883	50:		0:	
			Q	-055C		N.R.	50:		0:	
			Q	MOIST	-010C 065C	MS-883	50:		0:	
			Q	98%RH		1004	50:		0:	
			Q	S&F EM	025C 125C	MS-883	50:		0:	
			Q	-055C		N.R.	50:	5.00E 04	0:	
			Q	PAR EXC	005C	MS-883X	50:		0:	
			Q	S&F EM	025C 125C	MS-883	50:		0:	
			Q	-055C		N.R.	50:		0:	
			Q	PAR EXC	-055C	MS-883	50:	5.00E 04	0:	
			Q			1005 D	50:		0:	
			Q	S&F EM	025C 125C	MS-883	50:		0:	
			Q	-055C		N.R.	50:		0:	

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TMP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY /#
T.I.	E-DIP	X	05/77	TEMPCYC	-055C 125C	MS-883	50:		0:	
7400	14	0/70C	Q	S&F EM	1000CY	1010 B				
			Q	S&F EM	025C 125C	MS-883	50:		0:	
			Q	LOPRESS	1.09T 025C	N.R.		2.40E 03	0:	
			Q	S&F EM	025C 125C	MS-883	50:		0:	
			Q	PAR EXC	005C	1001 F			0:	
			Q	S&F EM	025C 125C	MS-883	50:		0:	
			Q	PAR EXC	005C	N.R.		5.00E 04	0:	
			Q	S&F EM	025C 125C	MS-883	50:		0:	
			Q	PAR EXC	125C	1005 D			0:	
			Q	S&F EM	025C 125C	MS-883	50:		0:	
			Q	PAR EXC	125C	N.R.		5.00E 04	0:	
			Q	S&F EM	025C 125C	MS-883	50:		0:	
			Q	PAR EXC	-055C	N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		371:		1:	
7425	14	0/70C	I	THRMSHK	000C 100C	N.R.	370:		0:	
			I	SCYC		N.R.	370:	6.22E 04	0:	
			I	REVBIAS	100C	N.R.	370:		1:	
			I	SDF EM	025C	N.R.	370:		1:	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		45:		1:	
7427	14	0/70C	I	THRMSHK	000C 100C	N.R.	44:		0:	
			I	SCYC		N.R.	44:	7.39E 03	0:	
			I	REVBIAS	100C	N.R.	44:		1:	
			I	SDF EM	025C	N.R.	44:			
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF FM	025C		27875:		403:	
7400	14	0/70C	I	THRMSHK	000C 100C	N.R.	27472:		0:	
			I	SCYC		N.R.	27472:	4.62E 06	0:	
			I	REVBIAS	100C	N.R.	27472:		147:	
			I	SDF EM	025C	N.R.				
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			13000:		0:	
7400	14	0/70C	I	S&F FM	025C 070C	N.R.	13000:		0:	
			I	THRMSHK	000C 100C	MS-883	13000:		0:	
			I	SCYC		1011 A	13000:	2.18E 06	0:	
			I	REVBIAS	125C	N.R.	13000:		65:MFEF 1242/7,	
			I	S&F EM	070C	N.R.	13000:		1243/37,	
			I						1244/21	
			I							
VARIOUS	DIP	N	12/76	VIS INS			5500:		0:	
7400	14	0/70C	I	S&F EM	025C 070C	N.R.	5500:		0:	
			I	THRMSHK	000C 100C	MS-883	5500:		0:	
			I	SCYC		1011 A	5500:	9.24E 05	0:	
			I	REVBIAS	125C	N.R.	5500:		47:MFEF 1245/9,	
			I	S&F EM	070C	N.R.	5500:		1246/21,	
			I						1247/16	
			I							
VARIOUS	DIP	N	12/76	VIS INS			21:		0:	
7400	14	0/70C	I	S&F EM	025C 070C	N.R.	21:		0:	
			I	THRMSHK	000C 100C	MS-883	21:		0:	
			I	SCYC		1011 A	21:	3.53E 03	0:	
			I	REVBIAS	125C	N.R.	21:		0:	
			I	S&F EM	070C	N.R.	21:		0:	
			I			N.R.				

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKC/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
VARIOUS 7400	DIP 14	N 0/70C	10/76 I	VIS INS S&F EM	: :025C 070C	N.R. :17323:	17323:		0:		
			I	THRMSHK	:000C 100C	N.R. MS-883	17323:		0:		
			I	15CY		1011 A	17323:		0:		
			I	REVBIA	:125C		17323:	2.91E 06	0:		
			I	S&F EM	:070C	N.R.	17323:		71:MFEF 1248/14,		
			I			N.R.			1249/14,		
									1250/38.		
									1251/9		
VARIOUS 7400	DIP 14	N 0/70C	11/76 I	VIS INS S&F EM	: :025C 070C	N.R. :42970:	42970:		0:		
			I	THRMSHK	:000C 100C	N.R. MS-883	42970:		0:		
			I	15CY		1011 A	42970:		0:		
			I	REVBIA	:125C		42970:	7.22E 06	0:		
			I	S&F EM	:070C	N.R.	42970:		990:MFEF 1252/48,		
			I			N.R.			1253/113,		
									1254/8, 1255/8:		
									1256/10,		
							0:		144: 1257/5		
			I	N.A.		N.R.					
VARIOUS 7400	DIP 14	N 0/70C	05/76 I	VIS INS S&F EM	: :025C 070C	N.R. :7535:	7535:		0:		
			I	THRMSHK	:000C 100C	N.R. MS-883	7535:		0:		
			I	15CY		1011 A	7535:		0:		
			I	REVBIA	:125C		7535:	1.27E 06	0:		
			I	S&F EM	:070C	N.R.	7535:		79:MFEF 1258/8,		
			I			N.R.			1259/5,		
									1260/66		
VARIOUS 7400	DIP 14	N 0/70C	11/76 I	VIS INS S&F EM	: :025C 070C	N.R. :20000:	20000:		0:		
			I	THRMSHK	:000C 100C	N.R. MS-883	20000:		0:		
			I	15CY		1011 A	20000:		0:		
			I	REVBIA	:125C		20000:	3.36E 06	0:		
			I	S&F EM	:070C	N.R.	20000:		70:MFEF 1261/1,		
			I			N.R.			1262/9, 1263/2:		
									1264/40,		
									1265/5, 1266/3:		
									1267/4, 1268/6:		
VARIOUS 7401	DIP 14	N 0/70C	08/76 I	VIS INS S&F EM	: :025C 070C	N.R. :5400:	5400:		0:		
			I	THRMSHK	:000C 100C	N.R. MS-883	5400:		0:		
			I	15CY		1011 A	5400:		0:		
			I	REVBIA	:125C		5400:	9.07E 05	0:		
			I	S&F EM	:070C	N.R.	5400:		39:MFEF 1269/39		
			I			N.R.					
VARIOUS 7402	DIP 14	N.R. 0/70C	11/75 I	SDF EM THRMSHK	: :025C 100C	N.R. :19803:	19803:		178:		
			I	5CYC		N.R.	19803:		0:		
			I	REVBIA	:100C		19803:	3.33E 06	0:		
			I	SDF EM	:025C	N.R.	19803:		106:		
			I			N.R.					
VARIOUS 7402	DIP 14	N 0/70C	12/76 I	VIS INS S&F EM	: :025C 070C	N.R. :140:	140:		0:		
			I	THRMSHK	:000C 100C	N.R. MS-883	140:		0:		
			I	15CY		1011 A	140:		0:		
			I	REVBIA	:125C		140:	2.35E 04	0:		
			I	S&F EM	:070C	N.R.	140:		0:		
			I			N.R.					

GATE

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/ PART NO	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
VARIOUS	DIP	N	12/76	VIS INS			5000		0		
7402	14	0/70C	I	S&F EM	025C 070C	N.R.	5000		0		
			I	THRMSHK	000C 100C	N.R.	5000		0		
			I	15CY		MS-883	5000		0		
			I	REVBIA	125C	1011 A	5000	8.40E 05	0		
			I	S&F EM	070C	N.R.	5000		33:MFEF	1270/9,	
			I			N.R.				1271/4,	
										1272/20	
VARIOUS	DIP	N	07/76	VIS INS			8559		0		
7402	14	0/70C	I	S&F EM	025C 070C	N.R.	8559		0		
			I	THRMSHK	000C 100C	N.R.	8559		0		
			I	15CY		MS-883	8559		0		
			I	REVBIA	125C	1011 A	8559	1.44E 06	0		
			I	S&F EM	070C	N.R.	8559		4:MFEF	1273/2,	
			I			N.R.				1274/2	
VARIOUS	DIP	N	04/76	VIS INS			43981		0		
7402	14	0/70C	I	S&F EM	025C 070C	N.R.	43981		0		
			I	THRMSHK	000C 100C	N.R.	43981		0		
			I	15CY		MS-883	43981		0		
			I	REVBIA	125C	1011 A	43981	7.39E 06	0		
			I	S&F EM	070C	N.R.	43981		303:MFEF	1275/13,	
			I			N.R.				1276/30,	
										1277/34,	
										1278/226	
VARIOUS	DIP	N	12/76	VIS INS			27643		0		
7402	14	0/70C	I	S&F EM	025C 070C	N.R.	27643		0		
			I	THRMSHK	000C 100C	N.R.	27643		0		
			I	15CY		MS-883	27642		0		
			I	REVBIA	125C	1011 A	27643	4.64E 06	0		
			I	S&F EM	070C	N.R.	27643		990:MFEF	1279/117,	
			I			N.R.				1280/15,	
										1281/258,	
										1282/33,	
			I	N-A.		N.R.	0		771:	1283/22,	
										1284/1361	
VARIOUS	DIP	N	05/76	VIS INS			1943		0		
7402	14	0/70C	I	S&F EM	025C 070C	N.P.	1943		0		
			I	THRMSHK	000C 100C	N.R.	1943		0		
			I	15CY		MS-883	1943		0		
			I	REVBIA	125C	1011 A	1943	3.26E 05	0		
			I	S&F EM	070C	N.R.	1943		28:MFEF	1285/9,	
			I			N.R.				1286/19	
VARIOUS	DIP	N	09/76	VIS INS			4440		0		
7402	14	0/70C	I	S&F EM	025C 070C	N.R.	4440		0		
			I	THRMSHK	000C 100C	N.R.	4440		0		
			I	15CY		MS-883	4440		0		
			I	REVBIA	125C	1011 A	4440	7.46E 05	0		
			I	S&F EM	070C	N.R.	4440		11:MFEF	1287/11	
			I			N.R.					
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		51515		603		
7408	14	0/70C	I	THRMSHK	000C 100C	N.R.	50912		0		
			I	15CY		N.R.	50912		0		
			I	REVBIA	100C	N.R.	50912	8.55E 06	0		
			I	SDF EM	025C	N.R.	50912		301		
			I			N.R.					

CATE

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVIDE HOURS	NO. FLD	FAILURE SUMMARY	//
VARIOUS 7408	DIP 14	N 0/70C	10/76	VIS INS I			18600		0		
				S&F EM	025C 070C	N.R.	18600		0		
				THRMSHK	000C 100C	N.R.	18600		0		
				15CY		MS-883	18600		0		
				1011 A			18600	3.12E 06	0		
				REVBIA	125C	N.R.	18600		0		
				S&F EM	070C	N.R.	18600		65:MFEF 1288/1,		
									1289/12,		
									1290/2, 1291/3,		
									1292/35,		
									1293/7		
VARIOUS 7408	DIP 14	N 0/70C	11/76	VIS INS I			8477		0		
				S&F EM	025C 070C	N.R.	8477		0		
				THRMSHK	000C 100C	N.R.	8477		0		
				15CY		MS-883	8477		0		
				1011 A			8477	1.42E 06	0		
				REVBIA	125C	N.R.	8477		0		
				S&F EM	070C	N.R.	8477		31:MFEF 1294/2,		
									1295/25,		
									1296/1, 1297/3,		
VARIOUS 7408	DIP 14	N 0/70C	05/76	VIS INS I			1800		0		
				S&F EM	025C 070C	N.R.	1800		0		
				THRMSHK	000C 100C	N.R.	1800		0		
				15CY		MS-883	1800		0		
				1011 A			1800	3.02E 05	0		
				REVBIA	125C	N.R.	1800		0		
				S&F EM	070C	N.R.	1800		2:MFEF 1298/2		
VARIOUS 7408	DIP 14	N 0/70C	08/76	VIS INS I			4000		0		
				S&F EM	025C 070C	N.R.	4000		0		
				THRMSHK	000C 100C	N.R.	4000		0		
				15CY		MS-883	4000		0		
				1011 A			4000	6.72E 05	0		
				REVBIA	125C	N.R.	4000		0		
				S&F EM	070C	N.R.	4000		17:MFEF 1299/4,		
									1306/13		
VARIOUS 7408	DIP 14	N 0/70C	08/76	VIS INS I			4000		0		
				S&F EM	025C 070C	N.R.	4000		0		
				THRMSHK	000C 100C	N.R.	4000		0		
				15CY		MS-883	4000		0		
				1011 A			4000	6.72E 05	0		
				REVBIA	125C	N.R.	4000		0		
				S&F EM	070C	N.R.	4000		74:MFEF 1301/7,		
									1302/62		
VARIOUS 7408	DIP 14	N 0/70C	11/76	VIS INS I			2648		0		
				S&F EM	025C 070C	N.R.	2648		0		
				THRMSHK	000C 100C	N.R.	2648		0		
				15CY		MS-883	2648		0		
				1011 A			2648	4.45E 05	0		
				REVBIA	125C	N.R.	2648		0		
				S&F EM	070C	N.R.	2648		57:MFEF 1303/2,		
									1304/2,		
									1305/49		

GATE

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RNC	TEST SRC	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICES HOURS	NO. FLD	FAILURE SUMMARY	/#
VARIOUS	DIP : N	12/76	14 : 0/70C	1	VIS INS		1352:		0:		
7408				1	S&F EM :025C 070C	N.R.	1352:		0:		
				1	THRMSHK :000C 100C	N.R.	1352:		0:		
				1	15CY	MS-883	1352:		0:		
				1	REVBIA :125C	1011 A	1352:	2.27E 05	0:		
				1	S&F EM :070C	N.R.	1352:		12:MFEF 1306/12		
				1		N.R.					
VARIOUS	DIP : N	12/76	14 : 0/70C	1	VIS INS		1170:		0:		
7409				1	S&F EM :025C 070C	N.R.	1170:		0:		
				1	THRMSHK :000C 100C	N.R.	1170:		0:		
				1	15CY	MS-883	1170:		0:		
				1	REVBIA :125C	1011 A	1170:	1.97E 05	0:		
				1	S&F EM :070C	N.R.	1170:		3:MFEF 1307/2		
				1		N.R.					
VARIOUS	DIP : N	11/75	14 : 0/70C	1	SDF EM :025C		13233:		2P4:		
7410				1	THRMSHK :000C 100C	N.R.	12949:		0:		
				1	15CY	N.R.	12949:	2.18E 06	0:		
				1	REVBIA :100C	N.R.	12949:		63:		
				1	SDF EM :025C	N.R.	12949:				
				1		N.R.					
VARIOUS	DIP : N	04/76	14 : 0/70C	1	VIS INS		5400:		0:		
7410				1	S&F EM :025C 070C	N.R.	5400:		0:		
				1	THRMSHK :000C 100C	N.R.	5400:		0:		
				1	15CY	MS-883	5400:		0:		
				1	REVBIA :125C	1011 A	5400:	9.07E 05	0:		
				1	S&F EM :070C	N.R.	5400:		0:		
				1		N.R.					
VARIOUS	DIP : N	12/76	14 : 0/70C	1	VIS INS		5500:		0:		
7410				1	S&F EM :025C 070C	N.R.	5500:		0:		
				1	THRMSHK :000C 100C	N.R.	5500:		0:		
				1	15CY	MS-883	5500:		0:		
				1	REVBIA :125C	1011 A	5500:	9.24E 05	0:		
				1	S&F EM :070C	N.R.	5500:		11:MFEF 1308/1,		
				1		N.R.			1309/2,1310/6:		
				1							
VARIOUS	DIP : N	10/76	14 : 0/70C	1	VIS INS		1467:		0:		
7410				1	S&F EM :025C 070C	N.R.	1467:		0:		
				1	THRMSHK :000C 100C	N.R.	1467:		0:		
				1	15CY	MS-883	1467:		0:		
				1	REVBIA :125C	1011 A	1467:	2.46E 05	0:		
				1	S&F EM :070C	N.R.	1467:		22:MFEF 1311/6,		
				1		N.R.			1312/12		
				1							
VARIOUS	DIP : N	06/76	14 : 0/70C	1	VIS INS		34928:		0:		
7410				1	S&F EM :025C 070C	N.R.	34928:		0:		
				1	THRMSHK :000C 100C	N.R.	34928:		0:		
				1	15CY	MS-883	34928:		0:		
				1	REVBIA :125C	1011 A	34928:	5.87E 06	0:		
				1	S&F EM :070C	N.R.	34928:		127:MFEF 1313/2,		
				1		N.R.			1314/1,1315/8:		
				1					1316/2,1317/8:		
				1					1318-1325/62:		

RELIABILITY ANALYSIS CENTER

OPERATIONAL TYPE TIL

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GATE

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ THP R4G	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 74136	DIP : N 14 : 0/70C		10/76	VIS INS : I : S&F EM : 025C : THRMSHK : 000C : 15CY : REVBIAS : 125C : S&F EM : 070C	070C 100C	N.R. N.R. MS-883 1011 A N.R. N.R.	50: 50: 50: 50: 50:	0: 0: 0: 0: 0:		
VARIOUS 74136	DIP : N 14 : 0/70C		11/76	VIS INS : I : S&F EM : 025C : THRMSHK : 000C : 15CY : REVBIAS : 125C : S&F EM : 070C	070C 100C	N.R. N.R. MS-883 1011 A N.R. N.R.	1550: 1550: 1550: 1550: 1550:	0: 0: 0: 0: 1:MFEF 1334/1		
VARIOUS 74136	DIP : N 14 : 0/70C		11/76	VIS INS : I : S&F EM : 025C : THRMSHK : 000C : 15CY : REVBIAS : 125C : S&F EM : 070C	070C 100C	N.R. N.R. MS-883 1011 A N.R. N.R.	32: 32: 32: 32: 32:	0: 0: 0: 0: 0:		
VARIOUS 74136	DIP : N 14 : 0/70C		12/76	VIS INS : I : S&F EM : 025C : THRMSHK : 000C : 15CY : REVBIAS : 125C : S&F EM : 070C	070C 100C	N.R. N.R. MS-883 1011 A N.R. N.R.	50: 50: 50: 50: 50:	0: 0: 0: 0: 0:		
VARIOUS 74136	DIP : N 14 : 0/70C		12/76	VIS INS : I : S&F EM : 025C : THRMSHK : 000C : 15CY : REVBIAS : 125C : S&F EM : 070C	070C 100C	N.R. N.R. MS-883 1011 A N.R. N.R.	175: 175: 175: 175: 175:	0: 0: 0: 0: 1:MFEF 1335/1		
VARIOUS 7413	DIP : N.R. 14 : 0/70C		11/75	SDF EM : 025C : THRMSHK : 000C : 15CY : REVBIAS : 100C : SDF EM : 025C	025C 100C	N.R. N.R. N.R. N.R. N.R.	6165: 6057: 6057: 6057: 6057:	108: 0: 0: 0: 22:		
VARIOUS 7413	DIP : N 14 : 0/70C		03/76	VIS INS : I : S&F EM : 025C : THRMSHK : 000C : 15CY : REVBIAS : 125C : S&F EM : 070C	070C 100C	N.R. N.R. MS-883 1011 A N.R. N.R.	1000: 1000: 1000: 1000: 1000:	0: 0: 0: 0: 42:MFEF 1336/5, 1337/37		

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	II
VARIOUS 7413	DIP 14	N 0/70C	06/76 I	VIS INS S&F EM	070C	N.R.	2000:		0:		
			I	THRMSHK	000C 100C	MS-883	2000:		0:		
			I	REVBIA	125C	1011 A	2000:	3.36E 05	0:		
			I	S&F EM	070C	N.R.	2000:		2:MFEF 1338/2		
			I			N.R.					
VARIOUS 7413	DIP 14	N 0/70C	06/76 I	VIS INS S&F EM	070C	N.R.	2300:		0:		
			I	THRMSHK	000C 100C	MS-883	2300:		0:		
			I	REVBIA	125C	1011 A	2300:	3.86E 05	0:		
			I	S&F EM	070C	N.R.	2300:		6:MFEF 1340/1, 1341/5		
			I			N.R.					
VARIOUS 7413	DIP 14	N 0/70C	11/76 I	VIS INS S&F EM	070C	N.R.	1319:		0:		
			I	THRMSHK	000C 100C	MS-883	1319:		0:		
			I	REVBIA	125C	1011 A	1319:	2.22E 05	0:		
			I	S&F EM	070C	N.R.	1319:		9:MFEF 1342/6		
			I			N.R.					
VARIOUS 13	DIP 14	N 0/70C	07/76 I	VIS INS S&F EM	070C	N.R.	2000:		0:		
			I	THRMSHK	000C 100C	MS-883	2000:		0:		
			I	REVBIA	125C	1011 A	2000:	3.36E 05	0:		
			I	S&F EM	070C	N.R.	2000:		9:MFEF 1343/1, 1344/8		
			I			N.R.					
VARIOUS 7413	DIP 14	N 0/70C	09/76 I	VIS INS S&F EM	070C	N.R.	1200:		0:		
			I	THRMSHK	000C 100C	MS-883	1200:		0:		
			I	REVBIA	125C	1011 A	1200:	2.02E 05	0:		
			I	S&F EM	070C	N.R.	1200:		12:MFEF 1345/12		
			I			N.R.					
VARIOUS 7413	DIP 14	N 0/70C	10/76 I	VIS INS S&F EM	070C	N.R.	87:		0:		
			I	THRMSHK	000C 100C	MS-883	87:		0:		
			I	REVBIA	125C	1011 A	87:	1.46E 04	0:		
			I	S&F EM	070C	N.R.	87:		0:		
			I			N.R.					
VARIOUS 7413	DIP 14	N 0/70C	11/76 I	VIS INS S&F EM	070C	N.R.	2300:		0:		
			I	THRMSHK	000C 100C	MS-883	2300:		0:		
			I	REVBIA	125C	1011 A	2300:	3.86E 05	0:		
			I	S&F EM	070C	N.R.	2300:		26:MFEF 1346/26		
			I			N.R.					

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
VARIOUS 7413	DIP 14	N 0/70C	12/76 I	VIS INS : S&F EM : 025C	070C	N.R.	1100: 7		0:		
			I	: THRMSHK : 000C	100C	N.R.	1100:		0:		
			I	: 15CY		MS-883 1011 A	1100:		0:		
			I	: REVBIA : 125C			1100:	1.85E 05	0:		
			I	: S&F EM : 070C		N.R.	1100:		11:MFEF 1347/11		
			I			N.R.					
VARIOUS 7420	DIP 14	N.R. 0/70C	11/75 I	SDF EM : 025C	070C	N.R.	1462:		1:		
			I	: THRMSHK : 000C	100C	N.R.	1461:		0:		
			I	: 15CY		N.R.	1461:	2.45E 05	0:		
			I	: REVBIA : 100C			1461:		0:		
			I	: SDF EM : 025C		N.R.	1461:		4:		
			I			N.R.					
VARIOUS 7420	DIP 14	N.R. 0/70C	11/75 I	SDF EM : 025C	070C	N.R.	2850:		65:		
			I	: THRMSHK : 000C	100C	N.R.	2785:		0:		
			I	: 15CY		N.R.	2785:		0:		
			I	: REVBIA : 100C			2785:	4.68E 05	0:		
			I	: SDF EM : 025C		N.R.	2785:		6:		
			I			N.R.					
VARIOUS 7420	DIP 14	N 0/70C	02/76 I	VIS INS : S&F EM : 025C	070C	N.R.	1676:		0:		
			I	: THRMSHK : 000C	100C	N.R.	1676:		0:		
			I	: 15CY		MS-883 1011 A	1676:		0:		
			I	: REVBIA : 125C			1676:	2.82E 05	0:		
			I	: S&F EM : 070C		N.R.	1676:		5:MFEF 1348/1. 1349/4		
			I			N.R.					
VARIOUS 7420	DIP 14	N 0/70C	02/76 I	VIS INS : S&F EM : 025C	070C	N.R.	466:		0:		
			I	: THRMSHK : 000C	100C	N.R.	466:		0:		
			I	: 15CY		MS-883 1011 A	466:		0:		
			I	: REVBIA : 125C			466:	7.83E 04	0:		
			I	: S&F EM : 070C		N.R.	466:		1:MFEF 1350/1		
			I			N.R.					
VARIOUS 7420	DIP 14	N 0/70C	03/76 I	VIS INS : S&F EM : 025C	070C	N.R.	1658:		0:		
			I	: THRMSHK : 000C	100C	N.R.	1658:		0:		
			I	: 15CY		MS-883 1011 A	1658:		0:		
			I	: REVBIA : 125C			1658:	2.79E 05	0:		
			I	: S&F EM : 070C		N.R.	1658:		5:MFEF 1351/1. 1352/1, 1353/3		
			I			N.R.					
VARIOUS 7420	DIP 14	N 0/70C	03/76 I	VIS INS : S&F EM : 025C	070C	N.R.	1419:		0:		
			I	: THRMSHK : 000C	100C	N.R.	1419:		0:		
			I	: 15CY		MS-883 1011 A	1419:		0:		
			I	: REVBIA : 125C			1419:	2.38E 05	0:		
			I	: S&F EM : 070C		N.R.	1419:		2:MFEF 1354/1. 1355/1		
			I			N.R.					

GATE

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TEMP RNC	PRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY	/#
VARIOUS	DIP	N	06/76	VIS INS			3000:		0:		
7420	14	0/70C	I	S&F EM	025C 070C	N.R.	3000:		0:		
			I	THRMSHK	000C 100C	MS-883	3000:		0:		
			I	15CY		1011 A	3000:		0:		
			I	REVBIA	125C		3000:	5.04E 05	0:		
			I	S&F EM	070C	N.R.	3000:		16:MFEF	1356/16	
			I			N.R.					
VARIOUS	DIP	N	06/76	VIS INS			1101:		0:		
7420	14	0/70C	I	S&F EM	025C 070C	N.R.	1101:		0:		
			I	THRMSHK	000C 100C	MS-883	1101:		0:		
			I	15CY		1011 A	1101:		0:		
			I	REVBIA	125C		1101:	1.85E 05	0:		
			I	S&F EM	070C	N.R.	1101:		3:MFEF	1357/3	
			I			N.R.					
VARIOUS	DIP	N	10/76	VIS INS			2000:		0:		
7420	14	0/70C	I	S&F EM	025C 070C	N.R.	2000:		0:		
			I	THRMSHK	000C 100C	MS-883	2000:		0:		
			I	15CY		1011 A	2000:		0:		
			I	REVBIA	125C		2000:	3.36E 05	0:		
			I	S&F EM	070C	N.R.	2000:		3:MFEF	1358/3	
			I			N.R.					
VARIOUS	DIP	N	05/76	VIS INS			1175:		0:		
7420	14	0/70C	I	S&F EM	025C 070C	N.R.	1175:		0:		
			I	THRMSHK	000C 100C	MS-883	1175:		0:		
			I	15CY		1011 A	1175:		0:		
			I	REVBIA	125C		1175:	1.97E 05	0:		
			I	S&F EM	070C	N.R.	1175:		2:MFEF	1359/2	
			I			N.R.					
VARIOUS	DIP	N	05/76	VIS INS			194:		0:		
7420	14	0/70C	I	S&F EM	025C 070C	N.R.	194:		0:		
			I	THRMSHK	000C 100C	MS-883	194:		0:		
			I	15CY		1011 A	194:		0:		
			I	REVBIA	125C		194:	3.25E 04	0:		
			I	S&F EM	070C	N.R.	194:		7:MFEF	1360/1	
			I			N.R.					
VARIOUS	DIP	N	09/76	VIS INS			8279:		0:		
7420	14	0/70C	I	S&F EM	025C 070C	N.R.	8279:		0:		
			I	THRMSHK	000C 100C	MS-883	8279:		0:		
			I	15CY		1011 A	8279:		0:		
			I	REVBIA	125C		8279:	1.39E 06	0:		
			I	S&F EM	070C	N.R.	8279:		23:MFEF	1361/1,	
			I			N.R.			1362/21,		
			I						1363/1		
VARIOUS	DIP	N	12/76	VIS INS			5236:		0:		
7420	14	0/70C	I	S&F EM	025C 070C	N.R.	5236:		0:		
			I	THRMSHK	000C 100C	MS-883	5236:		0:		
			I	15CY		1011 A	5236:		0:		
			I	REVBIA	125C		5236:	8.80E 05	0:		
			I	S&F EM	070C	N.R.	5236:		113:MFEF	1364/1,	
			I			N.R.			1365/5, 1366/1,		
			I						1367/22,		
			I						1368-1371/51		

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPT	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
VARIOUS 7420	DIP 14	N 0/70C	03/75	S&D EM	025C	N.R.	125:		0:		
				AUTOCLV	15PSIGSTEAM	N.R.	125:		0:		
				S&D EM	025C	N.R.	125:		4:MFEF 1751/4		
				THRMSHK	000C 100C	MS-883	121:		0:		
				15CY		1011 A	121:		0:		
				S&D EM	025C	N.R.	121:		0:		
				REVBias	125C	MS-883	121:	1.16E 04	0:		
				15CY		1015 A	121:		0:		
				S&D EM	025C	N.R.	121:		0:		
VARIOUS 7420	DIP 14	X 0/70C	05/75	VIS INS		N.R.	100:		0:		
				BAKE	150C	MS-883	100:	2.40E 03	0:		
				TEMPCYC	-365C 150C	1008 C	100:		0:		
				10CY		1010 C	100:		0:		
				CNSTACC	30KC 1 AXIS	MS-883	100:		0:		
				1 MIN E		2001 E	100:		0:		
				S&D EM	025C	N.R.	100:		0:		
				REVBias	125C	MS-883	100:	1.68E 04	0:		
				15CY		1015 A	100:		0:		
				S&D EM	025C	N.R.	100:		0:		
				S&D EM	070C	N.R.	100:		0:		
				S&D EM	000C	N.R.	100:		2:MFEF 1783/1, 1784/1		
VARIOUS 7425	DIP 14	N 0/70C	03/76	VIS INS		N.R.	106:		0:		
				S&F EM	025C 070C	N.R.	106:		0:		
				THRMSHK	000C 100C	MS-883	106:		0:		
				15CY		1011 A	106:		0:		
				REVBias	125C	N.R.	106:	1.78E 02	0:		
				S&F EM	070C	N.R.	106:		2:MFEF 1372/2		
VA. OUS 7425	DIP 14	N 0/70C	07/76	VIS INS		N.R.	1000:		0:		
				S&F EM	025C 070C	N.R.	1000:		0:		
				THRMSHK	000C 100C	MS-883	1000:		0:		
				15CY		1011 A	1000:		0:		
				REVBias	125C	N.R.	1000:	1.68E 05	0:		
				S&F EM	070C	N.R.	1000:		2:MFEF 1373/2		
VARIOUS 7425	DIP 14	N 0/70C	08/76	VIS INS		N.R.	500:		0:		
				S&F EM	025C 070C	N.R.	500:		0:		
				THRMSHK	000C 100C	MS-883	500:		0:		
				15CY		1011 A	500:		0:		
				REVBias	125C	N.R.	500:	8.40E 04	0:		
				S&F EM	070C	N.R.	500:		3:MFEF 1374/3		
VARIOUS 7427	DIP 14	N 0/70C	07/75	VIS INS		N.R.	50:		0:		
				S&F EM	025C 070C	N.R.	50:		0:		
				THRMSHK	000C 100C	MS-883	50:		0:		
				15CY		1011 A	50:		0:		
				REVBias	125C	N.R.	50:	8.40E 03	0:		
				S&F EM	070C	N.R.	50:		2:MFEF 1375/2		

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY			BIPOLAR			OPERATIONAL TYPE			TTL		
MANUFACTURER	PART NO	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
		PINS	TMP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FIL	SUMMARY
VARIOUS	7429	DIP	N	04/76	VIS INS			413		0:	
		16	0/70C	I	S&F EM	025C 070C	N.R.	413		0:	
				I	THRMSHK	000C 100C	N.R.	413		0:	
				I	15CY		MS-883	413		0:	
				I	REVBIA	125C	1011 A	413	6.94E 04	0:	
				I	S&F EM	070C	N.R.	413		0:	
				I			N.R.			9:MFEF 1376/2,	
				I			N.R.			1377/7	
VARIOUS	7429	DIP	N	05/76	VIS INS			1498		0:	
		16	0/70C	I	S&F EM	025C 070C	N.R.	1498		0:	
				I	THRMSHK	000C 100C	N.R.	1498		0:	
				I	15CY		MS-883	1498		0:	
				I	REVBIA	125C	1011 A	1498	2.52E 05	0:	
				I	S&F EM	070C	N.R.	1498		0:	
				I			N.R.			9:MFEF 1378/1,	
				I			N.R.			1379/8	
VARIOUS	7429	DIP	N	06/76	VIS INS			257		0:	
		16	0/70C	I	S&F EM	025C 070C	N.R.	257		0:	
				I	THRMSHK	000C 100C	N.R.	257		0:	
				I	15CY		MS-883	257		0:	
				I	REVBIA	125C	1011 A	257	4.32E 04	0:	
				I	S&F EM	070C	N.R.	257		0:	
				I			N.R.			11:MFEF 1380/11	
VARIOUS	7429	DIP	N	06/76	VIS INS			3399		0:	
		16	0/70C	I	S&F EM	025C 070C	N.R.	3399		0:	
				I	THRMSHK	000C 100C	N.R.	3399		0:	
				I	15CY		MS-883	3399		0:	
				I	REVBIA	125C	1011 A	3399	5.71E 05	0:	
				I	S&F EM	070C	N.R.	3399		0:	
				I			N.R.			19:MFEF 1381/19	
VARIOUS	7430	DIP	N.R.	11/75	SDF EM	025C		1568		13:	
		14	0/70C	I	THRMSHK	000C 100C	N.R.	1555		0:	
				I	15CY		N.R.	1555	2.61E 05	0:	
				I	REVBIA	100C	N.R.	1555		0:	
				I	SDF EM	025C	N.R.	1555		4:	
VARIOUS	7430	DIP	N	05/76	VIS INS			10023		0:	
		14	0/70C	I	S&F EM	025C 070C	N.R.	10023		0:	
				I	THRMSHK	000C 100C	N.R.	10023		0:	
				I	15CY		MS-883	10023		0:	
				I	REVBIA	125C	1011 A	10023	1.68E 06	0:	
				I	S&F EM	070C	N.R.	10023		0:	
				I			N.R.			42:MFEF 1382/4,	
				I			N.R.			1383/6, 1384/3,	
				I			N.R.			1385/30	
VARIOUS	7432	DIP	N.R.	11/75	SDF EM	025C		8191		63:	
		14	0/70C	I	THRMSHK	000C 100C	N.R.	8128		0:	
				I	15CY		N.R.	8128	1.37E 06	0:	
				I	REVBIA	100C	N.R.	8128		0:	
				I	SDF EM	025C	N.R.	8128		19:	

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY			BIPOLAR			OPERATIONAL TYPE			TTL		
MANUFACTURER	PART NO	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
		PINS	TEMP RRG	SKC	TYPE	LEVEL	RET.	TEST	HOURS	FLO	SUMMARY
VARIOUS	7432	DIP	N	10/76	VIS INS			5070:		0:	
		14	0/70C	I	S&F EM	025C 070C	N.R.	5070:		0:	
				I	THRM SHK	000C 100C	MS-883	5070:		0:	
				I	15CY		1011 A	5070:		0:	
				I	REVBIAS	125C		5070:	8.52E 05	0:	
				I	S&F EM	070C	N.R.	5070:		17:MFEF	1386/5.
				I			N.R.				1387/1, 1388/8:
VARIOUS	7432	DIP	N	05/76	VIS INS			2606:		0:	
		14	0/70C	I	S&F EM	025C 070C	N.R.	2606:		0:	
				I	THRM SHK	000C 100C	MS-883	2606:		0:	
				I	15CY		1011 A	2606:		0:	
				I	REVBIAS	125C		2606:	4.3EE 05	0:	
				I	S&F EM	070C	N.R.	2606:		16:MFEF	1389/8.
				I			N.R.				1390/8
VARIOUS	7432	DIP	N	10/76	VIS INS			370:		0:	
		14	0/70C	I	S&F EM	025C 070C	N.R.	370:		0:	
				I	THRM SHK	000C 100C	MS-883	370:		0:	
				I	15CY		1011 A	370:		0:	
				I	REVBIAS	125C		370:	6.22E 04	0:	
				I	S&F EM	070C	N.R.	370:		5:MFEF	1391/3.
				I			N.R.				1392/2
VARIOUS	7432	DIP	N	11/76	VIS INS			600:		0:	
		14	0/70C	I	S&F EM	025C 070C	N.R.	600:		0:	
				I	THRM SHK	000C 100C	MS-883	600:		0:	
				I	15CY		1011 A	600:		0:	
				I	REVBIAS	125C		600:	1.01E 05	0:	
				I	S&F EM	070C	N.R.	600:		6:MFEF	1393/4.
				I			N.R.				1394/2
VARIOUS	7432	DIP	N	12/76	VIS INS			59:		0:	
		14	0/70C	I	S&F EM	025C 070C	N.R.	59:		0:	
				I	THRM SHK	000C 100C	MS-883	59:		0:	
				I	15CY		1011 A	59:		0:	
				I	REVBIAS	125C		59:	9.91E 03	0:	
				I	S&F EM	070C	N.R.	59:		1:	
VARIOUS	7432	DIP	N	12/76	VIS INS			2700:		0:	
		14	0/70C	I	S&F EM	025C 070C	N.R.	2700:		0:	
				I	THRM SHK	000C 100C	MS-883	2700:		0:	
				I	15CY		1011 A	2700:		0:	
				I	REVBIAS	125C		2700:	4.54E 05	0:	
				I	S&F EM	070C	N.R.	2700:		26:MFEF	1395/26
				I			N.R.				
VARIOUS	7451	DIP	N	11/76	VIS INS			23014:		0:	
		14	0/70C	I	S&F EM	025C 070C	N.R.	23014:		0:	
				I	THRM SHK	000C 100C	MS-883	23014:		0:	
				I	15CY		1011 A	23014:		0:	
				I	REVBIAS	125C		23014:	1.87E 06	0:	
				I	S&F EM	070C	N.R.	23014:		59:MFEF	1396/4.
				I			N.R.				1397/8, 1398/1:
				I							1399/2, 1400/8:
				I							1401-1403/29

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/ PART NO	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	II
VARIOUS	DIP	N	12/76	VIS INS			6757		0		
7451	14	0/70C	I	S&F EM	025C 070C	N.R.	6757		0		
			I	THRMSHK	000C 100C	MS-883	6757		0		
			I	15CY		1011 A	6757	1.14E 06	0		
			I	REVBIA	125C		6757		0		
			I	S&F EM	070C	N.R.	6758		292:MFEF	1404/13,	
			I			N.R.				1405/250,	
										1406/1,1407/8,	
										1408/2	
	DIP	N	10/76	VIS INS			3975		0		
	14	0/70C	I	S&F EM	025C 070C	N.R.	3975		0		
			I	THRMSHK	000C 100C	MS-883	3975		0		
			I	15CY		1011 A	3975	6.68E 05	0		
			I	REVBIA	125C		3975		0		
			I	S&F EM	070C	N.R.	3975		46:MFEF	1409/3,	
			I			N.R.				1410/42	
VARIOUS	DIP	N	11/76	VIS INS			9445		0		
7454	14	0/70C	I	S&F EM	025C 070C	N.R.	9445		0		
			I	THRMSHK	C00C 100C	R.	9445		0		
			I	15CY		MS-883	9445		0		
			I	REVBIA	125C	1011 A	9445	1.59E 06	0		
			I	S&F EM	070C	N.R.	9445		0		
			I			N.R.			90:MFEF	1411/2,	
										1412/14,	
										1412/69,	
										1414/2	
VARIOUS	DIP	N	12/76	VIS INS			275		0		
7454	14	0/70C	I	S&F EM	025C 070C	N.R.	275		0		
			I	THRMSHK	000C 100C	MS-883	275		0		
			I	15CY		1011 A	275	4.62E 04	0		
			I	REVBIA	125C		275		0		
			I	S&F EM	070C	N.R.	275		6:MFEF	1415/3	
			I			N.R.					
VARIOUS	DIP	N	04/76	VIS INS			500		0		
7454	14	0/70C	I	S&F EM	025C 070C	N.R.	500		0		
			I	THRMSHK	000C 100C	MS-883	500		0		
			I	15CY		1011 A	500	8.40E 04	0		
			I	REVBIA	125C		500		0		
			I	S&F EM	070C	N.R.	500		29:MFEF	1416/26,	
			I			N.R.				1417/3	
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		554		5		
7486	14	0/70C	I	THRMSHK	000C 100C	N.R.	539		0		
			I	5CYC		N.R.	539	9.06E 04	0		
			I	REVBIA	100C		539		0		
			I	SDF EM	025C	N.R.	539		17		
			I			N.R.					
VARIOUS	DIP	N	10/76	VIS INS			100		0		
7486	14	0/70C	I	S&F EM	025C 070C	N.R.	100		0		
			I	THRMSHK	000C 100C	MS-883	100		0		
			I	15CY		1011 A	100	1.08E 04	0		
			I	REVBIA	125C		100		0		
			I	S&F EM	070C	N.R.	100		0		
			I			N.R.					

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY			BIPOLAR			OPERATIONAL TYPE			TTL		
MANUFACTURER	PART NO	P/G/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	7486	DIP 14	N 0/70C	05/76	VIS INS			3369		0	
				I	S&F FM	025C 070C	N.R.	3369		0	
				I	THRMSHK	000C 100C	N.R.	3369		0	
				I	15CY		MS-883 1011 A	3369		0	
				I	REVBIA	125C		3369	5.66E 05	0	
				I	S&F EM	070C	N.R.	3369		69:MFEF 1418/2, 1419/30	
				I			N.R.				
VARIOUS	7486	DIP 14	N 0/70C	12/76	VIS INS			2657		0	
				I	S&F EM	025C 070C	N.R.	2657		0	
				I	THRMSHK	000C 100C	N.R.	2657		0	
				I	15CY		MS-883 1011 A	2657		0	
				I	REVBIA	125C		2657	4.46E 05	0	
				I	S&F EM	070C	N.R.	2657		17:MFEF 1420/7, 1421/4, 1422/1, 1423/5	
				I			N.R.				
VARIOUS	7486	DIP 14	N 0/70C	06/76	VIS INS			150		0	
				I	S&F EM	025C 070C	N.R.	150		0	
				I	THRMSHK	000C 100C	N.R.	150		0	
				I	15CY		MS-883 1011 A	150		0	
				I	REVBIA	125C		150	2.52E 04	0	
				I	S&F EM	070C	N.R.	150		1	
				I			N.R.				
VARIOUS	7486	DIP 14	N 0/70C	12/76	VIS INS			660		0	
				I	S&F EM	025C 070C	N.R.	660		0	
				I	THRMSHK	000C 100C	N.R.	660		0	
				I	15CY		MS-883 1011 A	660		0	
				I	REVBIA	125C		660	1.11E 05	0	
				I	S&F EM	070C	N.R.	660		17:MFEF 1424/1, 1425/8, 1426/3	
				I			N.R.				
VARIOUS	8241	DIP 14	N 0/70C	07/76	VIS INS			50		0	
				I	S&F FM	025C 070C	N.R.	50		0	
				I	THRMSHK	000C 100C	N.R.	50		0	
				I	15CY		MS-883 1011 A	50		0	
				I	REVBIA	125C		50	8.40E 03	0	
				I	S&F FM	070C	N.R.	50		1:MFEF 1427/1	
				I			N.R.				
VARIOUS		DIP 14	N 0/70C	10/76	VIS INS			3990		0	
				I	S&F EM	025C 070C	N.R.	3990		0	
				I	THRMSHK	000C 100C	N.R.	3990		0	
				I	15CY		MS-883 1011 A	3990		0	
				I	REVBIA	125C		3990	6.70E 05	0	
				I	S&F FM	070C	N.R.	3990		54:MFEF 1428/1, 1429/30, 1430/4, 1431/9	
				I			N.R.				
VARIOUS		DIP 14	N 0/70C	12/76	VIS INS			4212		0	
				I	S&F EM	025C 070C	N.R.	4212		0	
				I	THRMSHK	000C 100C	N.R.	4212		0	
				I	15CY		MS-883 1011 A	4212		0	
				I	REVBIA	125C		4212	7.08E 05	0	
				I	S&F FM	070C	N.R.	4212		22:MFEF 1432/1, 1433/6, 1434/3, 1435/12	
				I			N.R.				

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE ECL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TMP PNC	SRC	TYPE	LEVEL	RFF.	TEST	HOURS	FLD	SUMMARY	/
MOTOROLA	PIP	N	10/76	VIS INS			100		0		
1601/1602	16	-40/80C	I	S&F FM	025C 070C	N.R.	100		0		
			I			N.R.					
			I	TEMP CYC	-055C 125C	MS-883	100		0		
			I		5CY	1010 B					
			I	RFVBIAS	125C		100	1.68E 04	0		
			I			N.R.					
			I	S&F EM	070C		100		1:MFEF 1436/1		
			I			N.R.					

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL, SUHL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TMP PNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY	/
VARIOUS	FPK	C-2	03/76	VIS INS	20X		2590		0		
C100	14	-55/125	U			N.R.					
			U	BAKE	125C	MS-883	2590	6.22E 04	0		
			U	TEMP CYC	-055C 125C	MS-883	2590		0		
			U		10CY	1010 B					
			U	CNSTACC			2590		0		
			U			N.R.					
			U	FINE LK	HE 5.E-8	MS-883	2590		7		
			U		60 MIN	1014 A					
			U	GROSSLK	FLUOR 125C	MS-883	2583		0		
			U		3X	1014 C					
			U	X-RAY	28X	MS-883	2583		12		
			U			2012					
			U	EM			2583		0		
			U	REVBIA	125C	N.R.	2399	3.93E 05	0		
			U	EM		N.R.	2399		65		
			U	EM		N.R.	2334		0		
			U	EM		N.R.					
VARIOUS	FPK	C-2	03/76	VIS INS	20X		30083		0		
G140	14	-55/125	U			N.R.					
			U	BAKE	125C	MS-883	30083	7.22E 05	0		
			U	TEMP CYC	-055C 125C	MS-883	30083		0		
			U		10CY	1010 B					
			U	CNSTACC			30083		0		
			U			N.R.					
			U	FINE LK	HE 5.E-8	MS-883	30082		35		
			U		160 MIN	1014 A					
			U	GROSSLK	FLUOR 125C	MS-883	30048		1		
			U		3X	1014 C					
			U	X-RAY	28X	MS-883	30048		328		
			U			2012					
			U	EM			29720		9		
			U	REVBIA	125C	N.R.	29261	4.80E 06	0		
			U	EM		N.R.	29261		323		
			U	EM		N.R.					
			U	EM		N.R.	28938		0		
			U			N.P.					

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL, SUHL							
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE, TMP RNC	SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
VARIOUS	G191	FPK :C-2 14 :N.R.	03/76	U	VIS INS	20X	N.R.	27791		13	
				U	BAKE	125C	MS-883	27778	6.67E 05	0	
				U	TEMPCYC	-055C 125C	MS-883	27778		0	
				U	10CY		1010 B				
				U	CNSTACC			27778		0	
				U	FINE LK	HE 5.E-8	MS-883	27778		108	
				U	60 MIN		1014 A				
				U	GROSSLK	FLUOR 125C	MS-883	27670		14	
				U	3X		1014 C				
				U	X-RAY	28X	MS-883	27656		298	
				U			2012				
				U	EM			27358		0	
				U	REVBIA	125C	N.R.	22967	3.77E 06	0	
				U	EM		N.R.	22967		294	
				U	EM		N.R.	22673		0	
				U			N.R.				
VARIOUS	G211	FPK :C-2 14 :55/125	03/76	U	VIS INS	20X	N.R.	6241		0	
				U	BAKE	125C	MS-883	6241	1.50E 05	0	
				U	TEMPCYC	-055C 125C	MS-883	6241		0	
				U	10CY		1010 B				
				U	CNSTACC			6241		2	
				U	FINE LK	HE 5.E-8	MS-883	6239		8	
				U	60 MIN		1014 A				
				U	GROSSLK	FLUOR 125C	MS-883	6231		30	
				U	3X		1014 C				
				U	X-RAY	28X	MS-883	6201		69	
				U	EM		2012				
				U	EM		N.R.	6132		0	
				U	REVBIA	125C	N.R.	4781	7.84E 05	0	
				U	EM		N.R.	4791		36	
				U	EM		N.R.	4745		0	
				U			N.R.				
VARIOUS	G221	FPK :C-2 14 :55/125	03/76	U	VIS INS	20X	N.R.	16583		9	
				U	BAKE	125C	MS-883	16574	3.98E 05	0	
				U	TEMPCYC	-055C 125C	MS-883	16574		0	
				U	10CY		1010 B				
				U	CNSTACC			16574		0	
				U	FINE LK	HE 5.E-8	MS-883	16574		78	
				U	60 MIN		1014 A				
				U	GROSSLK	FLUOR 125C	MS-883	16496		0	
				U	3X		1014 C				
				U	X-RAY	28X	MS-883	16496		408	
				U	EM		2012				
				U	EM		N.R.	16088		0	
				U	REVBIA	125C	N.R.	16304	2.57E 06	0	
				U	EM		N.R.	16304		256	
				U	EM		N.R.	16048		0	
				U			N.R.				

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL, SUHL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
VARIOUS G251	FPK 14	C-2 -55/125	03/76	VIS INS	20X		9801:		0:		
			U	BAKE	125C	N.R.	9801:	2.35E 05	0:		
			U	TEMPCYC	-055C 125C	MS-883	9801:		0:		
			U	10CY		1008 B	9801:		0:		
			U	CNSTACC		MS-883	9801:		0:		
			U			1010 B	9801:		0:		
			U			N.R.	9801:		0:		
			U	FINE LK	HE 5.E-8	MS-883	9801:		9:		
			U	60 MIN		1014 A	9801:				
			U	GROSSLK	FLUOR 125C	MS-883	9792:		0:		
			U	3X		1014 C	9792:				
			U	X-RAY	28X	MS-883	9792:		46:		
			U			2012					
			U								
			U	EM			9746:		1:		
			U	REVBias	125C	N.R.	9562:	1.57E 06	0:		
			U			N.R.	9562:		86:		
			U	EM		N.R.	9476:		0:		
			U			N.R.					
VARIOUS G252	FPK 14	C-2 -55/125	03/76	VIS INS	20X		27283:		0:		
			U	BAKE	125C	N.R.	27283:	6.55E 05	0:		
			U	TEMPCYC	-055C 125C	MS-883	37283:		0:		
			U	10CY		1008 B	27283:		0:		
			U	CNSTACC		MS-883	27283:		0:		
			U			N.R.	27283:		25:		
			U	FINE LK	HE 5.E-8	MS-883	27283:				
			U	60 MIN		1014 A	27258:		0:		
			U	GROSSLK	FLUOR 125C	MS-883	27258:		311:		
			U	3X		1014 C	27258:				
			U	X-RAY	28X	MS-883	27258:				
			U			2012					
			U	EM			26947:		1:		
			U	REVBias	125C	N.R.	22019:	3.61E 06	0:		
			U			N.R.	22019:		423:		
			U	EM		N.R.	21596:		0:		
			U			N.R.					
VARIOUS G260	FPK 14	C-2 -55/125	03/76	VIS INS	20X		5532:		0:		
			U	BAKE	125C	N.R.	5532:	1.33E 05	0:		
			U	TEMPCYC	-055C 125C	MS-883	5532:		0:		
			U	10CY		1008 B	5532:		0:		
			U	CNSTACC		MS-883	5532:		0:		
			U			1010 B	5532:		0:		
			U	FINE LK	HE 5.E-8	N.R.	5532:		20:		
			U	60 MIN		MS-883	5512:		0:		
			U	GROSSLK	FLUOR 125C	MS-883	5512:		139:		
			U	3X		1014 C	5512:				
			U	X-RAY	28X	MS-883	5512:				
			U			2012					
			U	EM			5373:		0:		
			U	REVBias	125C	N.R.	4672:	7.66E 05	0:		
			U			N.R.	4672:		118:		
			U	EM		N.R.	4554:		0:		
			U			N.R.					

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL. SCHL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS G261	FPK :C-2 14	-55/125	03/76	VIS INS	20X		2730:		0:	
			U	BAKF	125C	N.R.	2730:	6.55E 04	0:	
			U	TEMPCYC	-055C 125C	MS-883	2730:		0:	
			U	10CY		1008 B	2730:		0:	
			U	CNSTACC		MS-883	2730:		0:	
			U			1010 B	2730:		0:	
			U	FINE LK	HF 5.E-8	N.R.	2730:		19:	
			U	60 MIN		MS-883	2730:		0:	
			U	GROSSLK	FLUOR 125C	1014 A	2711:		0:	
			U	3X		MS-883	2711:		0:	
			U	X-RAY	28X	1014 C	2711:		8:	
			U	EM		MS-883	2703:		0:	
			U	REVBias	125C	2012	2655:	4.35E 05	0:	
			U	EM		N.R.	2655:		25:	
			U	EM		N.R.	2630:		0:	
			U	EM		N.R.			0:	
VARIOUS G310	FPK :C-2 14	-55/125	03/76	VIS INS	20X		17969:		0:	
			U	BAKE	125C	N.R.	17969:	4.31E 05	0:	
			U	TEMPCYC	-055C 125C	MS-883	17969:		0:	
			U	10CY		1008 B	17969:		0:	
			U	CNSTACC		MS-883	17969:		0:	
			U	FINE LK	4E 5.E-8	1010 B	17969:		60:	
			U	60 MIN		N.R.	17909:		0:	
			U	GROSSLK	FLUOR 125C	MS-883	17909:		0:	
			U	3X		1014 A	17909:		307:	
			U	X-RAY	28X	1014 C	17656:		14:	
			U	EM		MS-883	19057:		0:	
			U	REVBias	125C	2012	19057:		504:	
			U	EM		N.R.	18553:		0:	
			U	EM		N.R.			0:	
VARIOUS G311	FPK :C-2 14	-55/125	03/76	VIS INS	20X		28988:		0:	
			U	BAKE	125C	N.R.	28988:	6.96E 05	0:	
			U	TEMPCYC	-055C 125C	MS-883	28988:		0:	
			U	10CY		1008 B	28988:		0:	
			U	CNSTACC		MS-883	28988:		0:	
			U	FINE LK	HE 5.E-8	1010 B	28988:		65:	
			U	60 MIN		N.R.	28923:		3:	
			U	GROSSLK	FLUOR 125C	MS-883	28920:		247:	
			U	3X		1014 C	28673:		381:	
			U	X-RAY	28X	2012	24.70:	3.98E 06	0:	
			U	EM		N.R.	24270:		322:	
			U	REVBias	125C	N.R.	23048:		0:	
			U	EM		N.R.			0:	
			U	EM		N.R.			0:	

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPFRATIONAL TYPE TTL, SUHL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	HO. FLD	FAILURE SUMMARY	#
VARIOUS G40	FPK 14	C-2 -55/125	03/76	VIS INS U	20X		8580:		0:		
				BAKE	125C	N.R.	8580:	2.06E 05	0:		
				TEMPCYC	-055C 125C	MS-883	8580:		0:		
				10CY		1008 B	8580:		0:		
				CNSTACC		MS-883	8580:		0:		
				FINE LK	HE 5.E-8	1010 B	8580:		0:		
				60 MIN		N.R.	8580:		10:		
				GROSSLK	FLUOR 125C	MS-883	8580:		0:		
				3X		1014 A	8570:		0:		
				X-RAY	28X	MS-883	8570:		97:		
				2012		MS-883	8570:		0:		
				EM		2012	8473:		0:		
				REVBIA	125C	N.R.	8528:		0:		
				EM		N.R.	8528:		182:		
				EM		N.R.	8346:		0:		
				EM		N.R.	8346:		0:		
VARIOUS G41	FPK 14	C-2 -55/125	03/76	VIS INS U	20X		15958:		0:		
				BAKE	125C	N.R.	15958:	3.83E 05	0:		
				TEMPCYC	-055C 125C	MS-883	15958:		0:		
				10CY		1008 B	15958:		0:		
				CNSTACC		MS-883	15958:		0:		
				FINE LK	HE 5.E-8	1010 B	15958:		0:		
				60 MIN		N.R.	15958:		128:		
				GROSSLK	FLUOR 125C	MS-883	15830:		16:		
				3X		1014 A	15830:		0:		
				X-RAY	28X	MS-883	15814:		533:		
				2012		1014 C	15281:		0:		
				EM		MS-883	15281:		0:		
				REVBIA	125C	N.R.	20638:	3.38E 06	0:		
				EM		N.R.	20638:		297:		
				EM		N.R.	20638:		0:		
				EM		N.R.	20341:		0:		
VARIOUS G60	FPK 14	C-2 -55/125	03/76	VIS INS U	20X		14006:		13:		
				BAKE	125C	N.R.	13993:	3.36E 05	0:		
				TEMPCYC	-055C 125C	MS-883	13993:		0:		
				10CY		1008 B	13993:		0:		
				CNSTACC		MS-883	13993:		0:		
				FINE LK	HE 5.E-8	1010 B	13993:		0:		
				60 MIN		N.R.	13993:		9:		
				GROSSLK	FLUOR 125C	MS-883	13984:		0:		
				3X		1014 A	13984:		0:		
				X-RAY	28X	MS-883	13984:		0:		
				2012		1014 C	13984:		189:		
				EM		MS-883	13984:		0:		
				REVBIA	125C	N.R.	12303:	2.02E 06	0:		
				EM		N.R.	12303:		59:		
				EM		N.R.	12244:		0:		
				EM		N.R.	12244:		0:		

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL, SUHL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS G91	FPK 14	C-2 -55/125	03/76	VIS INS	20X		96:		0:	
			U	BAKE	125C	N.R.	96:	2.30E 03	0:	
			U	TEMPCYC	-055C 125C	MS-883 1008 B	96:		0:	
			U	10CY		MS-883 1010 B	96:		0:	
			U	CNSTACC		N.R.	96:		0:	
			U	FINE LK	HE 5.E-8	MS-883	96:		0:	
			U	60 MIN		1014 A				
			U	GROSSLK	FLUOR 125C	MS-883	96:		0:	
			U	3X		1014 C				
			U	X-RAY	28X	MS-883	96:		2:	
			U	EM		2612				
			U			N.R.	94:		3:	

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
RCA 4011A	DIP 14	N -55/125	03/75	S&D EM	025C	N.R.	125:		1:MFEF 1752/1	
			Q	AUTOCLV	15PSIG STEAM	N.R.	124:		0:	
			Q	S&D EM	025C	N.R.	124:		1:MFEF 1753/1	
			Q	THRMSHK	000C 100C	MS-883	123:		0:	
			Q	5CY		1011 A				
			Q	S&D EM	025C	N.R.	123:		9:	
			Q	REVBIA	125C	MS-883	123:	1.18E 04	0:	
			Q	S&D EM	025C	1015 A				
			Q			N.R.	123:		2:MFEF 1754/1, 1755/1	
RCA 4011A	E-DIP 14	N -50/80C	03/75	S&D EM	025C	N.R.	125:		4:MFEF 1756/2, 1757/2	
			Q	AUTOCLV	15PSIGSTEAM	N.R.	121:		0:	
			Q	S&D EM	025C	N.R.	121:		4:MFEF 1758/4	
			Q	THRMSHK	000C 100C	MS-883	117:		0:	
			Q	5CY		1011 A				
			Q	S&D EM	025C	N.R.	117:		0:	
			Q	RFVBIAS	125C	MS-883	117:	1.12E 04	0:	
			Q	S&D EM	025C	1015 A				
			Q			N.R.	117:		32:MFEF 1759/2, 1760/30	
RCA 4011A	FPK 14	JE -55/125	05/75	VIS INS		N.R.	100:		0:	
			Q	BAKE	150C	MS-883	100:	2.40E 03	0:	
			Q	TEMPCYC	-065C 150C	1008 C				
			Q	10CY		MS-883	100:		0:	
			Q	CNSTACC	30KC 1 AXIS	1010 C				
			Q	1 MIN E		MS-883	100:		0:	
			Q	FINE LK	HE 5.E-7	2001 E				
			Q	60 MIN		MS-883	100:		0:	
			Q	GROSSLK	FLUOR 125C	1014 A				
			Q	3X		MS-883	100:		0:	
			Q	S&D EM	025C	1014 C				
			Q			N.R.	100:		1:MFEF 1761/1	
			Q	REVBIA	125C	MS-883	99:	1.46E 04	0:	
			Q	S&D EM	025C	1015 A				
			Q	S&D EM	025C	N.R.	99:		3:MFEF 1762/1, 1763/2	
			Q	S&D EM	125C	N.R.	96:		0:	
			Q	S&D EM	-055C	N.R.	96:		0:	
			Q			N.R.				

GATE

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	II
RCA	4011A	DIP B-1 14	05/75 -55/125	Q	VIS INS	N.R.	100:		0:		
				Q	BAKE 150C	MS-883	100:	2.40E 03	0:		
				Q	TEMPCYC -065C 150C	MS-883	100:		0:		
				Q	10CY	1010 C	100:		0:		
				Q	CNSTACC 30KG 1 AXIS	MS-883	100:		0:		
				Q	1 MIN E	2001 E	100:		0:		
				Q	FINE LK HE 5.E-7	MS-883	100:		4:MFEF 1904/4		
				Q	60 MIN	1014 A	96:		8:MFEF 1905/8		
				Q	CROSSLK FLUOR 125C	MS-883	87:		2:MFEF 1764/1,		
				Q	3X	1014 C			1765/1		
				Q	S&D EM 025C	N.R.	85:	1.43E 04	0:		
				Q	REVBIA 125C	MS-883			5:MFEF 1766/2,		
				Q		1015 A	85:		1767/3		
				Q	S&D EM 025C	N.R.	80:		0:		
				Q	S&D EM 125C	N.R.	80:		2:MFEF 1768/1,		
				Q	S&D EM -055C	N.R.			1769/1		
RCA	4011A	DIP N 14	05/75 -55/125	Q	VIS INS	N.R.	100:		0:		
				Q	BAKE 150C	MS-883	100:	2.40E 03	0:		
				Q	TEMPCYC -065C 150C	MS-883	100:		0:		
				Q	10CY	1010 C	100:		0:		
				Q	CNSTACC 30KG 1 AXIS	MS-883	100:		0:		
				Q	1 MIN E	2001 E	100:		0:		
				Q	FINE LK HE 5.E-7	MS-883	100:		0:		
				Q	60 MIN	1014 A	100:		5:MFEF 1775/5		
				Q	CROSSLK FLUOR 125C	MS-883	95:		10:MFEF 1770/4,		
				Q	3X	1014 C			1771/6		
				Q	S&D EM 025C	N.R.	85:	1.43E 04	0:		
				Q	REVBIA 125C	MS-883	85:		2:MFEF 1772/2		
				Q	S&D EM 025C	1015 A	83:		2:MFEF 1773/2		
				Q	S&D EM 070C	N.R.	81:		2:MFEF 1774/2		
				Q	S&D EM 000C	N.R.					
RCA	4011A	DIP X 14	05/75 -55/125	Q	VIS INS	N.R.	100:		0:		
				Q	BAKE 150C	MS-883	100:	2.40E 03	0:		
				Q	TEMPCYC -065C 150C	MS-883	100:		0:		
				Q	10CY	1010 C	100:		0:		
				Q	CNSTACC 30KG 1 AXIS	MS-883	100:		0:		
				Q	1 MIN E	2001 E	100:		2:MFEF 1906/2		
				Q	FINE LK HE 5.E-7	MS-883	98:		0:		
				Q	60 MIN	1014 A					
				Q	CROSSLK FLUOR 125C	MS-883	98:		0:		
				Q	3X	1014 C			0:		
				Q	S&D EM 025C	N.R.	98:		0:		
				Q	REVBIA 125C	MS-883	98:	1.65E 04	0:		
				Q	S&D EM 025C	1015 A	97:		0:		
				Q	S&D EM 125C	N.R.	97:		0:		
				Q	S&D EM -055C	N.R.			0:		

GATE

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
RCA	4011A	E-DIP : X 14 : -40/80C	05/75	VIS INS			85		0	
				BAKE	150C	N.R.	85	2.04E-03	0	
				TEMP CYC	-065C 150C	MS-883 1008 C	85		0	
				100Y		1010 C			0	
				CNSTACC	30KG 1 AXIS	MS-883	85		0	
				1 MIN E		2001 E			0	
				S&F EM	025C		85		11	MPFP 1776/4
				REVBIAS	125C	N.R.			0	1777/1
				S&F EM	025C	MS-883 1015 A	74		0	
				S&F EM	070C	N.R.	74		7	MPFP 1776/1
				S&F EM	070C	N.R.	67		3	MPFP 1779/6
				S&F EM	000C	N.R.	64		3	MPFP 1780/1
						N.R.			0	1781/2

GENERATOR

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
VARIOUS	DIP : N 14 : 0/70C	05/76	VIS INS				600		0	
82562			I	S&F EM	025C 070C	N.R.	600		0	
			I	THRM SHK	000C 100C	MS-883 1011 A	600		0	
			I	15CY			600	1.01E-05	0	
			I	REVBIAS	125C		600		0	
			I	S&F EM	070C	N.R.	600		2	MPFP 1437/2
			I			N.R.				
VARIOUS	DIP : N 14 : 0/70C	07/76	VIS INS				200		0	
82562			I	S&F EM	025C 070C	N.R.	200		0	
			I	THRM SHK	000C 100C	MS-883 1011 A	200		0	
			I	15CY			200	3.36E-04	0	
			I	REVBIAS	125C		200		0	
			I	S&F EM	070C	N.R.	200		2	MPFP 1438/2
			I			N.R.				
VARIOUS	DIP : N 14 : 0/70C	07/76	VIS INS				300		0	
82562			I	S&F EM	025C 070C	N.R.	300		0	
			I	THRM SHK	000C 100C	MS-883 1011 A	300		0	
			I	15CY			300	5.04E-04	0	
			I	REVBIAS	125C		300		0	
			I	S&F EM	070C	N.R.	300		0	
			I			N.R.				
VARIOUS	DIP : N 14 : 0/70C	09/76	VIS INS				1000		0	
82562			I	S&F EM	025C 070C	N.R.	1000		0	
			I	THRM SHK	000C 100C	MS-883 1011 A	1000		0	
			I	15CY			1000	1.68E-05	0	
			I	REVBIAS	125C		1000		0	
			I	S&F EM	070C	N.R.	1000		2	MPFP 1439/2
			I			N.R.				
VARIOUS	DIP : N 14 : 0/70C	12/76	VIS INS				250		0	
82562			I	S&F EM	025C 070C	N.R.	250		0	
			I	THRM SHK	000C 100C	MS-883 1011 A	250		0	
			I	15CY			250	4.20E-04	0	
			I	REVBIAS	125C		250		0	
			I	S&F EM	070C	N.R.	250		0	
			I			N.R.				

GENERATOR

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR			OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TMP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
NATIONAL 8220	E-DIP 14	N 0/70C	07/76	VIS INS			50		0:	
				S&F EM	025C 070C	N.R.	50		0:	
				THRMSHK	000C 100C	N.R.	50		0:	
				15CY		MS-883	50		0:	
				REVBIA	125C	1011 A	50	8.40E 03	0:	
				S&F EM	070C	N.R.	50		0:	
NATIONAL 8220	E-DIP 14	N 0/70C	10/76	VIS INS			1938		0:	
				S&F EM	025C 070C	N.R.	1938		0:	
				THRMSHK	000C 100C	N.R.	1938		0:	
				15CY		MS-883	1938		0:	
				REVBIA	125C	1011 A	1938	3.26E 05	0:	
				S&F EM	070C	N.R.	1938		0:	
NATIONAL 8220	E-DIP 14	N 0/70C	06/76	VIS INS			500		0:	
				S&F EM	025C 070C	N.R.	500		0:	
				THRMSHK	000C 100C	N.R.	500		0:	
				15CY		MS-883	500		0:	
				REVBIA	125C	1011 A	500	8.40E 04	0:	
				S&F EM	070C	N.R.	500		0:	
NATIONAL 8220	E-DIP 14	N 0/70C	12/76	VIS INS			425		0:	
				S&F EM	025C 070C	N.R.	425		0:	
				THRMSHK	000C 100C	N.R.	425		0:	
				15CY		MS-883	425		0:	
				REVBIA	125C	1011 A	425	7.14E 04	0:	
				S&F EM	070C	N.R.	425		0:	
NATIONAL 8220	E-DIP 14	N 0/70C	12/76	VIS INS			100		0:	
				S&F EM	025C 070C	N.R.	100		0:	
				THRMSHK	000C 100C	N.R.	100		0:	
				15CY		MS-883	100		0:	
				REVBIA	125C	1011 A	100	1.88E 04	0:	
				S&F EM	070C	N.R.	100		0:	
NATIONAL 8220	E-DIP 14	N 0/70C	12/76	VIS INS			53		0:	
				S&F EM	025C 070C	N.R.	53		0:	
				THRMSHK	000C 100C	N.R.	53		0:	
				15CY		MS-883	53		0:	
				REVBIA	125C	1011 A	53	8.90E 04	0:	
				S&F EM	070C	N.R.	53		0:	
NATIONAL 8220	E-DIP 14	N 0/70C	12/76	VIS INS			53		0:	
				S&F EM	025C 070C	N.R.	53		0:	
				THRMSHK	000C 100C	N.R.	53		0:	
				15CY		MS-883	53		0:	
				REVBIA	125C	1011 A	53	8.90E 04	0:	
				S&F EM	070C	N.R.	53		0:	

GENERATOR

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/ PART NO	SCR-CL/ PINS	DATE/ TMP RRG	TEST SRC	TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FID	FAILURE SUMMARY
SIGNETICS	54182	DIP 16	N -55/125	07/75	VIS INS	30X	MM38510	663		0	
					Q	175X	MM38510	663	1.55E 04	0	
					Q	150C	MM38510	663		0	
					Q	TEMP CYC	MM38510	663		0	
					Q	10CY	MM38510	663		0	
					Q	CONSTACC 30KG 1 AXIS	MM38510	663		0	
					Q	11 MIN E	MM38510	663		0	
					Q	FINE LE ME 5-E-8	MM38510	663		0	
					Q	60 MIN	MM38510	663		0	
					Q	GROSS LK FLUOR 125C	MM38510	663		0	
					Q	3X	MM38510	663		0	
					Q	EM 025C	MM38510	663		0	
					Q	PAR EXC 125C	MM38510	663	1.07E 05	0	
					Q	S&F EM -065C-025C	MM38510	663		13	
					Q	125C	MM38510	663		0	
					Q	VIS INS 3X	MM38510	663		0	
					Q	20X	MM38510	663		0	
VARIOUS	74180	DIP 14	N 0/70C	11/75	S&F EM	025C	N.R.	997		0	
					I	THRESH 000C 100C	N.R.	997		0	
					I	SCY	N.R.	997		0	
					I	REVBIA 100C	N.R.	997	4.64E 04	0	
					I	S&F EM 025C	N.R.	997		0	
VARIOUS	74180	DIP 14	N 0/70C	03/76	VIS INS		N.R.	997		0	
					I	S&F EM 025C 070C	N.R.	997		0	
					I	TEMP CYC -055C 125C	MS-883	997		0	
					I	SCY	1011 A	997	1.67E 05	0	
					I	REVBIA 125C	N.R.	997		0	
					I	S&F EM 070C	N.R.	997		0	
VARIOUS	74180	DIP 14	N 0/70C	03/76	VIS INS		N.R.	997		0	
					I	S&F EM 025C 070C	N.R.	997		0	
					I	THRESH 000C 100C	MS-883	997		0	
					I	SCY	1011 A	997	6.71E 05	0	
					I	REVBIA 125C	N.R.	997		0	
					I	S&F EM 070C	N.R.	997		0	
VARIOUS	74180	DIP 14	N 0/70C	03/76	VIS INS		N.R.	300		0	
					I	S&F EM 025C 070C	N.R.	300		0	
					I	THRESH 000C 100C	MS-883	300		0	
					I	SCY	1011 A	300	8.40E 04	0	
					I	REVBIA 125C	N.R.	300		0	
					I	S&F EM 070C	N.R.	300		0	
VARIOUS	74180	DIP 14	N 0/70C	03/76	VIS INS		N.R.	2000		0	
					I	S&F EM 025C 070C	N.R.	2000		0	
					I	THRESH 000C 100C	MS-883	2000		0	
					I	SCY	1011 A	2000	3.38E 05	0	
					I	REVBIA 125C	N.R.	2000		0	
					I	S&F EM 070C	N.R.	2000		0	

GENERATOR

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	INO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
VARIOUS 74180	DIP 14	N 0/70C	12/76	VIS INS			1044		01	
			1	S&F EM	025C 070C	N.R.	1044		01	
			1	THRM SHK	000C 100C	N.R.	1044		01	
			1	15CY		MS-883 1011 A	1044		01	
			1	REVB IAS	125C		1044	1.75E-05	01	
			1	S&F EM	070C	N.R.	1044		01	
			1			N.R.			01	9:47EF 1452/1, 1453/6

GENERATOR

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE PMOS, STATIC

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	INO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
NITRON	DIP 40	N N.R.	05/77	BAKE	150C	MS-883 1008 C	3217	7.72E-04	01	
			U	TEMP CYC	-065C 150C	MS-883	3217		01	
			U	10CY		1010 C	3217		01	
			U	CNST ACC	20KC 10AXIS	MS-883	3217		01	
			U	1 MIN E		2001 D	3217		01	
			U	FINE LR	5:2-7	MS-883	3217		01	6:47EF 1907/6
			U	60 MIN		1014 A	3217		01	
			U	CROSSLE	FLUOR 125C	MS-883	3217		01	15:47EF 1908/15
			U	1X		1014 C	3217		01	
			U	FNCT EM	1085C	MS-883	3196		243	
			U			N.R.			01	

INVERTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	INO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
VARIOUS 74504	DIP 14	N 0/70C	12/76	VIS INS			7996		01	
			1	S&F EM	025C 070C	N.R.	7996		01	
			1	THRM SHK	000C 100C	N.R.	7996		01	
			1	15CY		MS-883 1011 A	7996		01	
			1	REVB IAS	125C		7996	1.34E-06	01	
			1	S&F EM	070C	N.R.	7996		01	
			1			N.R.			01	11:47EF 1454/7, 1455/44, 1456/25, 1457/57
VARIOUS 74505	DIP 14	N 0/70C	08/76	VIS INS			25		01	
			1	S&F EM	025C 070C	N.R.	25		01	
			1	THRM SHK	000C 100C	N.R.	25		01	
			1	15CY		MS-883 1011 A	25		01	
			1	REVB IAS	125C		25	4.20E-03	01	
			1	S&F EM	070C	N.R.	25		01	
			1			N.R.			01	

INVERTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LOW-POWER TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TNP ENG	DATE/ SEC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FID	FAILURE SUMMARY
T.I. 74L04	E-DIP 14	N.R. 0/70C	11/75	SDF EM	025C	N.R.	626		4	
			I	THRESHK	000C 100C	N.R.	622		0	
			I	15CYC		N.R.	622	1-04E CS	0	
			I	REVBias	100C	N.R.	622		0	
			I	SDF EM	025C	N.R.	622		0	
VARIOUS 74L04	DIP 14	N.R. 0/70C	11/75	SDF EM	025C	N.R.	9118		0	
			I	THRESHK	000C 100C	N.R.	9035		0	
			I	15CYC		N.R.	9035	1-32E CS	0	
			I	REVBias	100C	N.R.	9035		0	
			I	SDF EM	025C	N.R.	9035		22	
VARIOUS 74L04	DIP 14	N 0/70C	12/76	VIS INS		N.R.	687		0	
			I	SDF EM	025C 070C	N.R.	687		0	
			I	THRESHK	000C 100C	MS-883 1011	687		0	
			I	15CYC			687		0	
			I	REVBias	125C		687	1-15E CS	0	
			I	SDF EM	070C	N.R.	687		12: MFR 1458/2, 1458/3	

INVERTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH-SPEED TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TNP ENG	DATE/ SEC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FID	FAILURE SUMMARY
SIGMETICS 8H90	DIP 14	N 0/70C	12/76	VIS INS		N.R.	3102		0	
			I	SDF EM	025C 070C	N.R.	3102		0	
			I	THRESHK	000C 100C	MS-883 1011	3102		0	
			I	15CYC			3102		0	
			I	REVBias	125C		3102	1-21E CS	0	
			I	SDF EM	070C	N.R.	3102		0	
VARIOUS 74H04	DIP 14	N 0/70C	12/76	VIS INS		N.R.	4125		0	
			I	SDF EM	025C 070C	N.R.	4125		0	
			I	THRESHK	000C 100C	MS-883 1011	4125		0	
			I	15CYC			4125		0	
			I	REVBias	125C		4125	1-01E CS	0	
			I	SDF EM	070C	N.R.	4125		0	
VARIOUS 74H05	DIP 14	N 0/70C	06/76	VIS INS		N.R.	1835		0	
			I	SDF EM	025C 070C	N.R.	1835		0	
			I	THRESHK	000C 100C	MS-883 1011	1835		0	
			I	15CYC			1835		0	
			I	REVBias	125C		1835	1-08E CS	0	
			I	SDF EM	070C	N.R.	1835		0	

INVERTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER	PKG/ PART NO	SCR-CL/ TMP-RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
VARIOUS	74HC5	DIP 14	10/76	VIS-INS						
				S&F EM	025C 070C	N.R.	2747		0	
				THRMSHK	000C 100C	N.R.	2747		0	
				REVBias	15CY 125C	MS-883	2747		0	
				S&F EM	070C	N.R.	2747	4.61E 05	0	
						N.R.	2747		16:MFEF 1470/16	
VARIOUS	74H05	DIP 14	12/76	VIS-INS						
				S&F EM	025C 070C	N.R.	81		0	
				THRMSHK	000C 100C	N.R.	81		0	
				REVBias	15CY 125C	MS-883	81		0	
				S&F EM	070C	N.R.	81	1.36E 04	0	
						N.R.	81		5:MFEF 1471/4	
VARIOUS	74H05	DIP 14	12/76	VIS-INS						
				S&F EM	025C 070C	N.R.	191		0	
				THRMSHK	000C 100C	N.R.	191		0	
				REVBias	15CY 125C	MS-883	191		0	
				S&F EM	070C	N.R.	191	3.21E 04	0	
						N.R.	191		0	
VARIOUS	74H05	DIP 14	12/76	VIS-INS						
				S&F EM	025C 070C	N.R.	525		0	
				THRMSHK	000C 100C	N.R.	525		0	
				REVBias	15CY 125C	MS-883	525		0	
				S&F EM	070C	N.R.	525	8.82E 04	0	
						N.R.	525		15:MFEF 1472/1	
						N.R.	525		1473/14	
VARIOUS	74H05	DIP 14	12/76	VIS-INS						
				S&F EM	025C 070C	N.R.	55		0	
				THRMSHK	000C 100C	N.R.	55		0	
				REVBias	15CY 125C	MS-883	55		0	
				S&F EM	070C	N.R.	55	9.24E 03	0	
						N.R.	55		0	

INVERTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LS-TTL

MANUFACTURER	PKG/ PART NO	SCR-CL/ TMP-RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
VARIOUS	74LS04	DIP 14	10/76	VIS-INS						
				S&F EM	025C 070C	N.R.	1410		0	
				THRMSHK	000C 100C	N.R.	1410		0	
				REVBias	15CY 125C	MS-883	1410		0	
				S&F EM	070C	N.R.	1410	2.37E 05	0	
						N.R.	1410		19:MFEF 1474/19	

INVERTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP-RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
VARIOUS 74LS04	DIP : N 14 : 0/70C		11/76	VIS INS			400		0	
			I	S&F EM : 025C	070C	N.R.	400		0	
			I	THRMSHK : 000C	100C	N.R.	400		0	
			I	15CY		MS-883 1011 A	400		0	
			I	REVBIA : 125C			400	6.72E 04	0	
			I	S&F EM : 070C		N.R.	400		19	MFEF 1475/19
			I			N.R.				
VARIOUS 74LS04	DIP : N 14 : 0/70C		12/76	VIS INS			500		0	
			I	S&F EM : 025C	070C	N.R.	500		0	
			I	THRMSHK : 000C	100C	N.R.	500		0	
			I	15CY		MS-883 1011 A	500		0	
			I	REVBIA : 125C			500	8.40E 04	0	
			I	S&F EM : 070C		N.R.	500		0	
			I			N.R.				
VARIOUS 74LS05	DIP : N 14 : 0/70C		08/76	VIS INS			300		0	
			I	S&F EM : 025C	070C	N.R.	300		0	
			I	THRMSHK : 000C	100C	N.R.	300		0	
			I	15CY		MS-883 1011 A	300		0	
			I	REVBIA : 125C			300	5.04E 04	0	
			I	S&F EM : 070C		N.R.	300		0	
			I			N.R.				
VARIOUS 74LS14	DIP : N 14 : 0/70C		08/76	VIS INS			100		0	
			I	S&F EM : 025C	070C	N.R.	100		0	
			I	THRMSHK : 000C	100C	N.R.	100		0	
			I	15CY		MS-883 1011 A	100		0	
			I	REVBIA : 125C			100	1.68E 04	0	
			I	S&F EM : 070C		N.R.	100		1	MFEF 1476/1
			I			N.R.				
VARIOUS 74LS14	DIP : N 14 : 0/70C		08/76	VIS INS			655		0	
			I	S&F EM : 025C	070C	N.R.	655		0	
			I	THRMSHK : 000C	100C	N.R.	655		0	
			I	15CY		MS-883 1011 A	655		0	
			I	REVBIA : 125C			655	1.10E 05	0	
			I	S&F EM : 070C		N.R.	655		11	MFEF 1477/11
			I			N.R.				

INVERTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP-RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
NATIONAL 7404	E-DIP : N.R. 14 : 0/70C		11/75	SDF EM : 025C			2505		6	
			I	THRMSHK : 000C	100C	N.R.	2499		0	
			I	15CY		N.R.	2499	4.20E 05	0	
			I	REVBIA : 100C		N.R.	2499		4	
			I	SDF EM : 025C		N.R.	2499			
SIGNETICS 7404	E-DIP : N.R. 14 : 0/70C		11/75	SDF EM : 025C			9048		23	
			I	THRMSHK : 000C	100C	N.R.	9026		0	
			I	15CY		N.R.	9026	1.52E 06	0	
			I	REVBIA : 100C		N.R.	9026		9	
			I	SDF EM : 025C		N.R.	9026			
			I			N.R.				

INVERTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY			BIPOLAR			OPERATIONAL TYPE			TTL					
MANUFACTURER	PART NO	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE			
		PINS	THP ENG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY			
SIGNETICS	7405	E-DIP	N.R.	11/75	SDF EM	025C		3092		14				
		14	0/70C	I	THRMSHK	000C	N.R.	3078		0				
				I	5CYC	100C	N.R.	3078	5.17E 05	0				
				I	REVBIA	100C	N.R.	3078		8				
				I	SDF EM	025C	N.R.	3078						
T.I.	7404	E-DIP	N	01/75	THRMSHK	000C		175		0				
		14	0/70C	I	5CYC	100C	N.R.	175	2.94E 04	0				
				I	REVBIA	070C	N.R.	175		1				
				I	S&F EM	070C	N.R.	175		0				
				I	VIS INS		N.R.	174		0				
T.I.	7414	E-DIP	N.R.	11/75	SDF EM	025C		18		0				
		14	0/70C	I	THRMSHK	000C	N.R.	18		0				
				I	5CYC	100C	N.R.	18		0				
				I	REVBIA	100C	N.R.	18	3.02E 03	0				
				I	SDF EM	025C	N.R.	18		0				
VARIOUS	7404	DIP	N.R.	11/75	SDF EM	025C		24064		159				
		14	0/70C	I	THRMSHK	000C	N.R.	23905		0				
				I	5CYC	100C	N.R.	23905	4.02E 06	0				
				I	REVBIA	100C	N.R.	23905		60				
				I	SDF EM	025C	N.R.	23905						
VARIOUS	7404	DIP	N	03/76	VIS INS			5056		0				
		14	0/70C	I	S&F EM	025C	N.R.	5056		0				
				I	THRMSHK	000C	N.R.	5056		0				
				I	15CY	100C	MS-883	5056		0				
				I	REVBIA	125C	1011 A	5056	8.49E 05	0				
				I	S&F EM	070C	N.R.	5056		23	MFEP 1478/23			
				I			N.R.							
VARIOUS	7404	DIP	N	03/76	VIS INS			5000		0				
		14	0/70C	I	S&F EM	025C	N.R.	5000		0				
				I	THRMSHK	000C	N.R.	5000		0				
				I	15CY	100C	MS-883	5000		0				
				I	REVBIA	125C	1011 A	5000	8.40E 05	0				
				I	S&F EM	070C	N.R.	5000		14	MFEP 1479/14			
				I			N.R.				1487/13			
				I										
VARIOUS	7404	DIP	N	04/76	VIS INS			2697		0				
		14	0/70C	I	S&F EM	025C	N.R.	2697		0				
				I	THRMSHK	000C	N.R.	2697		0				
				I	15CY	100C	MS-883	2697		0				
				I	REVBIA	125C	1011 A	2697	4.53E 05	0				
				I	S&F EM	070C	N.R.	2697		12	MFEP 1481/12			
				I			N.R.				1482/10			
				I										
VARIOUS	7404	DIP	N	05/76	VIS INS			5150		0				
		14	0/70C	I	S&F EM	025C	N.R.	5150		0				
				I	THRMSHK	000C	N.R.	5150		0				
				I	15CY	100C	MS-883	5150		0				
				I	REVBIA	125C	1011 A	5150	8.65E 05	0				
				I	S&F EM	070C	N.R.	5150		169	MFEP 1483/169			
				I			N.R.				1484/168			

INVERTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY			BIPOLAR			OPERATIONAL TYPE			TTL		
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RNC	TEST SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. PLD	FAILURE SUMMARY /#
VARIOUS	7404	DIP : N 14 : 0/70C	05/76	VIS INS	I	S&F EM : 025C 070C	N.R.	1952:		0:	
					I	THRMSHK : 000C 100C	N.R.	1952:		0:	
					I	15CY	MS-883	1952:		0:	
					I	REVBIA : 125C	1011 A	1952:	3.28E 05	0:	
					I	S&F EM : 070C	N.R.	1952:		0:	
					I		N.R.	1952:		11:MFEF 1485/11	
VARIOUS	7404	DIP : N 14 : 0/70C	08/76	VIS INS	I	S&F EM : 025C 070C	N.R.	15000:		0:	
					I	THRMSHK : 000C 100C	N.R.	15000:		0:	
					I	15CY	MS-883	15000:		0:	
					I	REVBIA : 125C	1011 A	15000:	2.52E 06	0:	
					I	S&F EM : 070C	N.R.	15000:		0:	
					I		N.R.	15000:		56:MFEF 1486/55, 1487/1	
VARIOUS	7404	DIP : N 14 : 0/70C	08/76	VIS INS	I	S&F EM : 025C 070C	N.R.	42480:		0:	
					I	THRMSHK : 000C 100C	N.R.	42480:		0:	
					I	15CY	MS-883	42480:		0:	
					I	REVBIA : 125C	1011 A	42480:	7.14E 06	0:	
					I	S&F EM : 070C	N.R.	42480:		0:	
					I		N.R.	42480:		150:MFEF 1468/3, 1489/95, 1490/9, 1491/14, 1492-1497/26	
VARIOUS	7404	DIP : N 14 : 0/70C	12/76	VIS INS	I	S&F EM : 025C 070C	N.R.	433:		0:	
					I	THRMSHK : 000C 100C	N.R.	433:		0:	
					I	15CY	MS-883	433:		0:	
					I	REVBIA : 125C	1011 A	433:	7.27E 04	0:	
					I	S&F EM : 070C	N.R.	433:		0:	
					I		N.R.	433:		22:MFEF 1498/17, 1499/1.1500/3	
VARIOUS	7405	DIP : N 14 : 0/70C	03/76	VIS INS	I	S&F EM : 025C 070C	N.R.	4095:		0:	
					I	THRMSHK : 000C 100C	N.R.	4095:		0:	
					I	15CY	MS-883	4095:		0:	
					I	REVBIA : 125C	1011 A	4095:	6.88E 05	0:	
					I	S&F EM : 070C	N.R.	4095:		0:	
					I		N.R.	4095:		9:MFEF 1501/2, 1502/7	
VARIOUS	7405	DIP : N 14 : 0/70C	06/76	VIS INS	I	S&F EM : 025C 070C	N.R.	1245:		0:	
					I	THRMSHK : 000C 100C	N.R.	1245:		0:	
					I	15CY	MS-883	1245:		0:	
					I	REVBIA : 125C	1011 A	1245:	2.09E 05	0:	
					I	S&F EM : 070C	N.R.	1245:		0:	
					I		N.R.	1245:		5:MFEF 1503/5	
VARIOUS	7405	DIP : N 14 : 0/70C	05/76	VIS INS	I	S&F EM : 025C 070C	N.R.	421:		0:	
					I	THRMSHK : 000C 100C	N.R.	421:		0:	
					I	15CY	MS-883	421:		0:	
					I	REVBIA : 125C	1011 A	421:	7.07E 04	0:	
					I	S&F EM : 070C	N.R.	421:		0:	
					I		N.R.	421:		2:MFEF 1504/2	

INVERTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TMP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY	/#
VARIOUS	DIP : N	06/76	06/76	VIS INS			900:		0:		
7405	14 : 0/70C	I		S&F EM	025C 070C	N.R.	900:		0:		
		I		THRMSHK	000C 100C	N.R.	900:		0:		
		I		15CY		MS-883	900:		0:		
		I		REVBIA	125C	1011 A	900:	1.51E 05	0:		
		I		S&F EM	070C	N.R.	900:		3:MFEF 1505/3		
		I				N.R.					
VARIOUS	DIP : N	06/76	06/76	VIS INS			199:		0:		
7405	14 : 0/70C	I		S&F EM	025C 070C	N.R.	199:		0:		
		I		THRMSHK	000C 100C	N.R.	199:		0:		
		I		15CY		MS-883	199:		0:		
		I		REVBIA	125C	1011 A	199:	3.34E 04	0:		
		I		S&F EM	070C	N.R.	199:		2:MFEF 1506/2		
		I				N.R.					
VARIOUS	DIP : N	08/76	08/76	VIS INS			15000:		0:		
7405	14 : 0/70C	I		S&F EM	025C 070C	N.R.	15000:		0:		
		I		THRMSHK	000C 100C	N.R.	15000:		0:		
		I		15CY		MS-883	15000:		0:		
		I		REVBIA	125C	1011 A	15000:	2.52E 06	0:		
		I		S&F EM	070C	N.R.	15000:		81:MFEF 1507/11,		
		I				N.R.			1508/19,		
									1509/44		
VARIOUS	DIP : N	12/76	12/76	VIS INS			6499:		0:		
7405	14 : 0/70C	I		S&F EM	025C 070C	N.R.	6499:		0:		
		I		THRMSHK	000C 100C	N.R.	6499:		0:		
		I		15CY		MS-883	6499:		0:		
		I		REVBIA	125C	1011 A	6499:	1.09E 06	0:		
		I		S&F EM	070C	N.R.	6499:		282:MFEF 1510/65,		
		I				N.R.			1511/170,		
									1512/38,		
									1513/8		
VARIOUS	DIP : N	12/76	12/76	VIS INS			428:		0:		
7405	14 : 0/70C	I		S&F EM	025C 070C	N.R.	428:		0:		
		I		THRMSHK	000C 100C	N.R.	428:		0:		
		I		15CY		MS-883	428:		0:		
		I		REVBIA	125C	1011 A	428:	7.19E 04	0:		
		I		S&F EM	070C	N.R.	428:		0:		
		I				N.R.					
VARIOUS	DIP : N	07/76	07/76	VIS INS			14893:		0:		
7405	14 : 0/70C	I		S&F EM	025C 070C	N.R.	14893:		0:		
		I		THRMSHK	000C 100C	N.R.	14893:		0:		
		I		15CY		MS-883	14893:		0:		
		I		REVBIA	125C	1011 A	14893:	1.98E 06	0:		
		I		S&F EM	070C	N.R.	14893:		74:MFEF 1514/35,		
		I				N.R.			1515/15,		
									1516-1517/24		
VARIOUS	DIP : N.R.	11/75	11/75	SDF EM	025C		469:		1:		
7414	14 : 0/70C	I		THRMSHK	000C 130C	N.R.	469:		0:		
		I		15CY		N.R.	469:		0:		
		I		REVBIA	100C	N.R.	469:	7.86E 04	0:		
		I		SDF FM	025C	N.R.	469:		0:		
		I				N.R.					

INVERTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOIAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
VARIOUS 7414	DIP : N 14 : 0/70C	02/76	VIS INS	I	S&F EM : 025C 070C	N.R.	700:	0:			
				I	THRMSHK : 000C 100C	N.R.	700:	0:			
				I	15CY	MS-883	700:	0:			
				I	REVBIA : 125C	1011 A	700:	1.18E 05	0:		
				I	S&F EM : 070C	N.R.	700:	0:			
				I		N.R.					
VARIOUS 7414	DIP : N 14 : 0/70C	09/76	VIS INS	I	S&F EM : 025C 070C	N.R.	1068:	0:			
				I	THRMSHK : 000C 100C	N.R.	1068:	0:			
				I	15CY	MS-883	1068:	0:			
				I	REVBIA : 125C	1011 A	1068:	1.79E 05	0:		
				I	S&F EM : 070C	N.R.	1068:	14:MFEF 1518/12,			
				I		N.R.		1519/2			
VARIOUS 7414	DIP : N 14 : 0/70C	08/76	VIS INS	I	S&F EM : 025C 070C	N.R.	250:	0:			
				I	THRMSHK : 000C 100C	N.R.	250:	0:			
				I	15CY	MS-883	250:	0:			
				I	REVBIA : 125C	1011 A	250:	4.20E 04	0:		
				I	S&F EM : 070C	N.R.	250:	2:MFEF 1520/2			
				I		N.R.					
VARIOUS 7414	DIP : N 14 : 0/70C	09/76	VIS INS	I	S&F EM : 025C 070C	N.R.	575:	0:			
				I	THRMSHK : 000C 100C	N.R.	575:	0:			
				I	15CY	MS-883	575:	0:			
				I	REVBIA : 125C	1011 A	575:	9.66E 04	0:		
				I	S&F EM : 070C	N.R.	575:	2:MFEF 1521/2			
				I		N.R.					

INVERTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS				OPERATIONAL TYPE CMOS							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
NATIONAL 4007	E-DIP : N 14 : -40/85C	05/77	BAKE	Q	150C	MS-883	495:	1.19E 04	0:		
			TEMPCYC	Q	-065C 150C	1008 C	495:	0:			
			10CY	Q		MS-883	495:	0:			
			CNSTACC	Q	30KG 1 AXIS	MS-883	495:	0:			
			1 MIN E	Q		2001 E	495:	0:			
			D&F EM	Q	025C	MS-883	495:	22:			
			REVBIA	Q	125C	N.R.	473:	7.37E 04	0:		
				Q		MS-883	473:	143:			
			D&F EM	Q	025C 125C	1015 A	473:	0:			
			-055C	Q		MS-883	330:	0:			
			VIS INS	Q	3X	MS-883	2009	0:			
			10X	Q		2009					

INVERTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS				OPERATIONAL TYPE CMOS							
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RNC	TEST SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
NATIONAL 4007	E-DIP 14	X -40/80C	05/77	Q	THRMSHK	-065C 150C	MS-883	50:		0:	
						15CY	1011 C				
					S&F EM	025C 125C	MS-883	50:		0:	
						-055C	N.R.				
					MOIST	-010C 065C	MS-883	50:		0:	
						982RH	1004				
					S&F EM	025C 125C	MS-883	50:		1:MFEF 1785/1	
						-055C	N.R.				
					REVBias	005C	MS-883X	49:	4.90E 04	0:	
							1005 A				
					S&F EM	025C 125C	MS-883	49:		0:	
						-055C	N.R.				
					REVBias	-055C	MS-883	49:	4.90E 04	0:	
							1005 A				
					S&F EM	025C 125C	MS-883	49:		24:MFEF 1786/24	
						-055C	N.R.				
NATIONAL 4007	E-DIP 14	X -40/80C	05/77	Q	TEMPCYC	-055C 125C	MS-883	50:		0:	
						1000CY	1010 B				
					S&F EM	025C 125C	MS-883	50:		0:	
						-055C	N.R.				
					LOPRESS	1.09T 025C	MS-883	50:	2.40E 03	0:	
							1001 F				
					S&F EM	025C 125C	MS-883	50:		0:	
						-055C	N.R.				
					REVBias	005C	MS-883X	50:	5.00E 04	0:	
							1005 A				
					S&F EM	025C 125C	MS-883	50:		0:	
						-055C	N.R.				
					REVBias	125C	MS-883	50:	5.00E 04	0:	
							1005 A				
					S&F EM	025C 125C	MS-883	50:		4:MFEF 1787/4	
						-055C	N.R.				
RCA 4007A	E-DIP 14	N -40/80C	05/77	Q	BAKE	150C	MS-883	495:	1.19E 04	0:	
							1008 C				
					TEMPCYC	-065C 150C	MS-883	495:		0:	
						10CY	1010 C				
					CNSTACC	30KG 1 AXIS	MS-883	495:		0:	
						1 MIN E	2001 E				
					D&F EM	025C	MS-883	495:		59:	
							N.R.				
					REVBias	125C	MS-883	436:	6.98E 04	0:	
							1015 A				
					D&F EM	025C 125C	MS-883	436:		101:	
						-055C	N.R.				
					VIS INS	3X	MS-883	335:		0:	
						10X	2009				
RCA 4007A	E-DIP 14	X -40/80C	05/77	Q	THRMSHK	-065C 150C	MS-883	50:		0:	
						15CY	1011 C				
					S&F EM	025C 125C	MS-883	5:		0:	
						-055C	N.R.				
					MOIST	-010C 065C	MS-883	50:		0:	
						982RH	1004				
					S&F EM	025C 125C	MS-883	50:		3:MFEF 1788/3	
						-055C	N.R.				
					REVBias	005C	MS-883X	50:	5.00E 04	0:	
							1005 A				
					S&F EM	025C 125C	MS-883	50:		0:	
						-055C	N.R.				
					REVBias	-055C	MS-883	50:	5.00E 04	0:	
							1005 A				
					S&F EM	025C 125C	MS-883	5:		6:MFEF 1789/6	
						-055C	N.R.				
RCA 4007A	E-DIP 14	X -40/80C	05/77	Q	TEMPCYC	-055C 125C	MS-883	50:		0:	
						10000CY	1010 B				
					S&F EM	025C 125C	MS-883	50:		0:	
						-055C	N.R.				
					LOPRESS	1.05T 025C	MS-883	50:	2.40E 03	0:	
							1001 F				
					S&F EM	025C 125C	MS-883	50:		0:	
						-055C	N.R.				
					REVBias	005C	MS-883X	50:	5.00E 04	0:	
							1005 A				
					S&F EM	025C 125C	MS-883	50:		0:	
						-055C	N.R.				
					REVBias	125C	MS-883	50:	5.00E 04	0:	
							1005 A				
					S&F EM	025C 125C	MS-883	50:		4:MFEF 1790/1, 1791/2, 1792/1	
						-055C	N.R.				

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE LOW POWER TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TEMP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY	#
ADV MICRO DEV	E-DIP	N.R.	11/75	SDF EM	025C		855:		8:		
93L14	16	0/70C	I	THRMSHK	000C	N.R.	847:		0:		
			I	5CYC	100C	N.R.	847:	1.42E 05	0:		
			I	REVBias	100C	N.R.	847:		2:		
			I	SDF EM	025C	N.R.	847:				
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	025C		681:		7:		
74L75	16	0/70C	I	THRMSHK	000C	N.R.	674:		0:		
			I	5CYC	100C	N.R.	674:	1.13E 05	0:		
			I	REVBias	100C	N.R.	674:		4:		
			I	SDF EM	025C	N.R.	674:				
T-1.	E-DIP	N.R.	11/75	SDF EM	025C		1445:		53:		
74L75	16	0/70C	I	THRMSHK	000C	N.R.	1412:		0:		
			I	5CYC	100C	N.R.	1412:	2.37E 05	0:		
			I	REVBias	100C	N.R.	1412:		2:		
			I	SDF EM	025C	N.R.	1412:				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		5217:		53:		
74L75	16	0/70C	I	THRMSHK	000C	N.R.	5164:		0:		
			I	5CYC	100C	N.R.	5164:	5.68E 05	0:		
			I	REVBias	100C	N.R.	5164:		5:		
			I	SDF EM	025C	N.R.	5164:				

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE LS TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINS	TEMP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY	#
VARIOUS	DIP	N	09/76	VIS INS			510:		0:		
74LS279	16	0/70C	I	S&F EM	025C	N.R.	510:		0:		
			I	THRMSHK	000C	N.R.	510:		0:		
			I	15CY	100C	MS-883	510:		0:		
			I	REVBias	125C	1011 A	510:	8.57E 04	0:		
			I	S&F EM	070C	N.R.	510:		2:MFEF	1522/2	
			I			N.R.	510:				
VARIOUS	DIP	N	11/76	VIS INS			167:		0:		
74LS279	16	0/70C	I	S&F EM	025C	N.R.	167:		0:		
			I	THRMSHK	000C	N.R.	167:		0:		
			I	15CY	100C	MS-883	167:		0:		
			I	REVBias	125C	1011 A	167:	2.81E 04	0:		
			I	S&F EM	070C	N.R.	167:		2:MFEF	1523/2	
			I			N.R.	167:				
VARIOUS	DIP	N	11/76	VIS INS			75:		0:		
74LS75	16	0/70C	I	S&F EM	025C	N.R.	75:		0:		
			I	THRMSHK	000C	N.R.	75:		0:		
			I	15CY	100C	MS-883	75:		0:		
			I	REVBias	125C	1011 A	75:	1.26E 04	0:		
			I	S&F EM	070C	N.R.	75:		1:MFEF	1524/1	
			I			N.R.	75:				

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TMP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY //
SIGNETICS	DIP	N	04/75	VIS INS	30X	MM38510	1228:		0:	
5475	16	-55/125	Q	:BAKE	150C	2010 B				
			Q	:TEMPCYC	-065C 150C	MM38510	1228:	2.95E 04	0:	
			Q	:10CY		1008 C				
			Q	:CNSTACC	30KG 1 AXIS	MM38510	1228:		0:	
			Q	:1 MIN E		1010 C				
			Q	:FINE LK	HE 5.E-8	MM38510	1226:		12:	
			Q	:60 MIN		1014 A				
			Q	:GROSSLK	FLUOR 125C	MM38510	1214:		15:	
			Q	:3X		1014 C				
			Q	:EM	025C	MM38510	1199:		4:	
			Q			N.R.				
			Q	:PAR EXC	125C	MM38510	1195:		0:	
			Q			1015 D				
			Q	:S&D EM	-055C 025C	MM38510	1195:		82:	
			Q	:125C		N.R.				
			Q	:VIS INS	3X	MM38510	1013:		0:	
			Q	:20X		2009				
SIGNETICS	FPK	N	01/75	VIS INS	30X	MM38510	643:		0:	
5477	14	-55/125	Q	:BAKE	150C	2010 B				
			Q	:TEMPCYC	-065C 150C	MM38510	643:		0:	
			Q	:10CY		1008 C				
			Q	:CNSTACC	30KG 1 AXIS	MM38510	643:		0:	
			Q	:1 MIN E		1010 C			39:	
			Q	:FINE LK	HE 5.E-8	2001 E				
			Q	:60 MIN		MM38510	604:		0:	
			Q	:GROSSLK	FLUOR 125C	1014 A				
			Q	:3X		MM38510	604:		4:	
			Q	:EM	025C	1014 C				
			Q			MM38510	600:		1:	
			Q			N.R.				
			Q	:PAP EXC	125C	MM38510	599:	1.01E 05	0:	
			Q			1015 D				
			Q	:S&D EM	-055C 0025C	MM38510	599:		6:	
			Q	:125C		N.R.				
			Q	:VIS INS	3X	MM38510	593:		0:	
			Q	:20X		2009				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		555:		1:	
74279	16	0/70C	I			N.R.				
			I	:THRM SHK	000C 100C		554:		0:	
			I	:5CYC		N.R.				
			I	:REVBias	100C		554:	9.31E 04	0:	
			I	:SDF EM	025C	N.R.			0:	
			I			N.R.				
T.I.	E-DIP	N	05/76	VIS INS			693:		0:	
9308	24	0/70C	I			N.R.				
			I	:S&F EM	025C 070C		693:		0:	
			I			N.R.				
			I	:THRM SHK	000C 100C	MS-883	693:		0:	
			I	:15CY		1011 A				
			I	:REVBias	125C		693:	1.16E 05	0:	
			I			N.R.				
			I	:S&F EM	070C		693:		9:MFEF 1525/8,	
			I			N.R.			1526/1	
			I							
T.I.	DIP	N	06/76	VIS INS			1000:		0:	
9308	24	0/70C	I			N.R.				
			I	:S&F EM	025C 070C		1000:		0:	
			I			N.R.				
			I	:TEMPCYC	-055C 125C	MS-883	1000:		0:	
			I	:5CY		1G10 B				
			I	:REVBias	125C		1000:	1.66E 05	0:	
			I			N.R.				
			I	:S&F EM	070C		1000:		7:MFEF 1727/7	
			I			N.R.				

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 74100	DIP : N 24 : 0/70C	05/76	I	VIS INS			60:		0:	
			I	S&F EM	025C 070C	N.R.	60:		0:	
			I	TEMPCYC	-055C 125C	N.R.	60:		0:	
			I	15CY		MS-883 1010 B	60:		0:	
			I	REVBias	125C		60:	1.01E 04	0:	
			I	S&F EM	070C	N.R.	60:		1:MFEF 1528/1	
			I			N.R.				
VARIOUS 74100	DIP : N 24 : 0/70C	11/76	I	VIS INS			2383:		0:	
			I	S&F EM	025C 070C	N.R.	2383:		0:	
			I	THRMSHK	000C 100C	N.R.	2383:		0:	
			I	15CY		MS-883 1011 A	2383:		0:	
			I	REVBias	125C		2383:	4.00E 05	0:	
			I	S&F EM	070C	N.R.	2383:		13:MFEF 1529/12, 1530/1	
			I			N.R.				
			I							
VARIOUS 74116	DIP : N 24 : 0/70C	03/76	I	VIS INS			60:		0:	
			I	S&F EM	025C 070C	N.R.	60:		0:	
			I	THRMSHK	000C 100C	N.R.	60:		0:	
			I	15CY		MS-883 1011 A	60:		0:	
			I	REVBias	125C		60:	1.01E 04	0:	
			I	S&F EM	070C	N.R.	60:		0:	
			I			N.R.				
VARIOUS 74116	DIP : N 24 : 0/70C	12/76	I	VIS INS			114:		0:	
			I	S&F EM	025C 070C	N.R.	114:		0:	
			I	THRMSHK	000C 100C	N.R.	114:		0:	
			I	15CY		MS-883 1011 A	114:		0:	
			I	REVBias	125C		114:	1.92E 04	0:	
			I	S&F EM	070C	N.R.	114:		0:	
			I			N.R.				
VARIOUS 7475	DIP : N 16 : 0/70C	03/76	I	VIS INS			1525:		0:	
			I	S&F EM	025C 070C	N.R.	1525:		0:	
			I	THRMSHK	000C 100C	N.R.	1525:		0:	
			I	15CY		MS-883 1011 A	1525:		0:	
			I	REVBias	125C		1525:	2.56E 05	0:	
			I	S&F EM	070C	N.R.	1525:		6:MFEF 1531/2, 1532/1, 1533/3:	
			I			N.R.				
VARIOUS 7475	DIP : N 16 : 0/70C	03/76	I	VIS INS			500:		0:	
			I	S&F EM	025C 070C	N.R.	500:		0:	
			I	THRMSHK	000C 100C	N.R.	500:		0:	
			I	15CY		MS-883 1011 A	500:		0:	
			I	REVBias	125C		500:	8.40E 04	0:	
			I	S&F EM	070C	N.R.	500:		5:MFEF 1534/1, 1535/4	
			I			N.R.				
VARIOUS 7475	DIP : N 16 : 0/70C	03/76	I	VIS INS			2484:		0:	
			I	S&F EM	025C 070C	N.R.	2484:		0:	
			I	THRMSHK	000C 100C	N.R.	2484:		0:	
			I	15CY		MS-883 1011 A	2484:		0:	
			I	REVBias	125C		2484:	4.17E 05	0:	
			I	S&F EM	070C	N.R.	2484:		7:MFEF 1536/7	
			I			N.R.				

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 7475	DIP 16	N 0/70C	04/76	VIS INS I S&F EM THRMSHK 15CY REVBIA I S&F EM I	025C 070C 000C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	2000: 2000: 2000: 2000: 2000: 2000:	3.36E 05	0: 0: 0: 0: 0: 5:MFEF 1537/1, 1538/4	
VARIOUS 7475	DIP 16	N 0/70C	05/76	VIS INS I S&F EM THRMSHK 15CY REVBIA I S&F EM I	025C 070C 000C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	3000: 3000: 3000: 3000: 3000: 3000:	5.04E 05	0: 0: 0: 0: 0: 25:MFEF 1539/16, 1540/9	
VARIOUS 7475	DIP 16	N 0/70C	06/76	VIS INS I S&F EM THRMSHK 15CY REVBIA I S&F EM I	025C 070C 000C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	9000: 9000: 9000: 9000: 9000: 9000:	1.51E 06	0: 0: 0: 0: 0: 46:MFEF 1541/2, 1542/5, 1543/4, 1544/1, 1545/13, 1546-1547/21	
VARIOUS 7475	DIP 16	N 0/70C	08/76	VIS INS I S&F EM THRMSHK 15CY REVBIA I S&F EM I	025C 070C 000C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	5000: 5000: 5000: 5000: 5000: 5000:	6.40E 05	0: 0: 0: 0: 0: 18:MFEF 1548/18	
VARIOUS 7475	DIP 16	N 0/70C	08/76	VIS INS I S&F EM THRMSHK 15CY REVBIA I S&F EM I	025C 070C 000C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	5000: 5000: 5000: 5000: 5000: 5000:	8.40E 05	0: 0: 0: 0: 0: 34:MFEF 1549/3, 1550/9, 1551/19	
VARIOUS 7475	DIP 16	N 0/70C	02/76	VIS INS I S&F EM THRMSHK 15CY REVBIA I S&F EM I	025C 070C 000C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	224: 224: 224: 224: 224: 224:	3.76E 04	0: 0: 0: 0: 0: 7:MFEF 1552/7	
VARIOUS 7475	DIP 16	N 0/70C	03/76	VIS INS I S&F EM THRMSHK 15CY REVBIA I S&F EM I	025C 070C 000C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	7426: 7426: 7426: 7426: 7426: 7426:	1.25E 06	0: 0: 0: 0: 0: 35:MFEF 1553/1, 1554/8, 1555/12, 1556-1558/14	

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RNC	SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	II
VARIOUS	7475	DIP : N 16	10/76	0/70C	VIS INS			2618:		0:		
					:S4F EM	:025C 070C	N.R.	2618:		0:		
					:THERMSE	:000C 100C	MS-883	2618:		0:		
					:15CY		1011 A	2618:		0:		
					:REVBias	:125C		2618:	4.40E 05	0:		
					:S4F EM	:070C	N.R.	2618:		12:MFEF 1559/1.		
							N.R.				1560/6, 1561/1.	
											1562/4	
VARIOUS	7475	DIP : N 16	05/76	0/70C	VIS INS			677:		0:		
					:S4F EM	:025C 070C	N.R.	677:		0:		
					:THERMSE	:000C 100C	MS-883	677:		0:		
					:15CY		1011 A	677:	1.14E 05	0:		
					:REVBias	:125C		677:		48:MFEF 1563/32.		
					:S4F EM	:070C	N.R.	677:			1564/16	
VARIOUS	9314	DIP : N 16	02/76	0/70C	VIS INS			9046:		0:		
					:S4F EM	:025C 070C	N.R.	9046:		0:		
					:THERMSE	:000C 100C	MS-883	9046:		0:		
					:15CY		1011 A	9046:	1.52E 06	0:		
					:REVBias	:125C		9046:		250:MFEF 1565/12.		
					:S4F EM	:070C	N.R.	9046:			1566/107.	
											1567/3.	
											1568/121	
VARIOUS	9314	DIP : N 16	07/76	0/70C	VIS INS			470:		0:		
					:S4F EM	:025C 070C	N.R.	470:		0:		
					:THERMSE	:000C 100C	MS-883	470:		0:		
					:15CY		1011 A	470:	7.90E 04	0:		
					:REVBias	:125C		470:		7:MFEF 1569/7		
					:S4F EM	:070C	N.R.	470:				
VARIOUS	9314	DIP : N 16	05/76	0/70C	VIS INS			200:		0:		
					:S4F EM	:025C 070C	N.R.	200:		0:		
					:THERMSE	:000C 100C	MS-883	200:		0:		
					:15CY		1011 A	200:	3.36E 04	0:		
					:REVBias	:125C		200:				
					:S4F EM	:070C	N.R.	200:				
VARIOUS	9314	DIP : N 16	06/76	0/70C	VIS INS			6500:		0:		
					:S4F EM	:025C 070C	N.R.	6500:		0:		
					:THERMSE	:000C 100C	MS-883	6500:		0:		
					:15CY		1011 A	6500:	1.09E 04	0:		
					:REVBias	:125C		6500:		133:MFEF 1570/9.		
					:S4F EM	:070C	N.R.	6500:			1571/86.	
											1572/38	
VARIOUS	9314	DIP : N 16	07/76	0/70C	VIS INS			850:		0:		
					:S4F EM	:025C 070C	N.R.	850:		0:		
					:THERMSE	:000C 100C	MS-883	850:		0:		
					:15CY		1011 A	850:	1.43E 05	0:		
					:REVBias	:125C		850:		28:MFEF 1573/25.		
					:S4F EM	:070C	N.R.	850:			1574/2	

LATCH

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR			OPERATIONAL TYPE TTL								
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	//
VARIOUS -314	DIP : N 16 : 0/70C		07/76	VIS INS			2000:		0:		
			I	S&F EM : 025C	070C	N.R.	2000:		0:		
			I	THRMSHK : 000C	100C	MS-883	2000:		0:		
			I	15CY		1011 A	2000:		0:		
			I	REVBias : 125C			2000:	3.36E 05	0:		
			I	S&F EM : 070C		N.R.	2000:		12:MFEF 1575/9,		
			I			N.R.			1576/3		
VARIOUS 9314	DIP : N 16 : 0/70C		07/76	VIS INS			102:		0:		
			I	S&F EM : 025C	070C	N.R.	102:		0:		
			I	THRMSHK : 000C	100C	MS-883	102:		0:		
			I	15CY		1011 A	102:	1.71E 04	0:		
			I	REVBias : 125C		N.R.	102:		25:MFEF 1577/23,		
			I	S&F EM : 070C		N.R.	102:		1578/2		
VARIOUS 9314	DIP : N 16 : 0/70C		08/76	VIS INS			2999:		0:		
			I	S&F EM : 025C	070C	N.R.	2999:		0:		
			I	THRMSHK : 000C	100C	MS-883	2999:		0:		
			I	15CY		1011 A	2999:	5.04E 05	0:		
			I	REVBias : 125C		N.R.	2999:		26:MFEF 1579/2,		
			I	S&F EM : 070C		N.R.	2999:		1580/13,		
									1581/9		
VARIOUS 9314	DIP : N 16 : N.R.		10/76	VIS INS			1000:		0:		
			I	S&F EM : 025C	070C	N.R.	1000:		0:		
			I	TEMPCYC : -055C	125C	MS-883	1000:		0:		
			I	5CY		1010 B	1000:	1.68E 05	0:		
			I	REVBias : 125C		N.R.	1000:		20:MFEF 1582/3,		
			I	S&F EM : 070C		N.R.	1000:		1583/6,		
									1584/11		
VARIOUS 9314	DIP : N 16 : 0/70C		11/76	VIS INS			3057:		0:		
			I	S&F EM : 025C	070C	N.R.	3057:		0:		
			I	THRMSHK : 000C	100C	MS-883	3057:		0:		
			I	15CY		1011 A	3057:	5.14E 05	0:		
			I	REVBias : 125C		N.R.	3057:		35:MFEF 1585/1,		
			I	S&F EM : 070C		N.R.	3057:		1586/25,		
									1587/9		
VARIOUS 9314	DIP : N 16 : 0/70C		11/76	VIS INS			130:		0:		
			I	S&F EM : 025C	070C	N.R.	130:		0:		
			I	THRMSHK : 000C	100C	MS-883	130:		0:		
			I	15CY		1011 A	130:	2.18E 04	0:		
			I	REVBias : 125C		N.R.	130:		13:MFEF 1588/13		
			I	S&F EM : 070C		N.R.	130:				
VARIOUS 9314	DIP : N 16 : 0/70C		12/76	VIS INS			4600:		0:		
			I	S&F EM : 025C	070C	N.R.	4600:		0:		
			I	THRMSHK : 000C	100C	MS-883	4600:		0:		
			I	15CY		1011 A	4600:	7.73E 05	0:		
			I	REVBias : 125C		N.R.	4600:		67:MFEF 1589/6,		
			I	S&F EM : 070C		N.R.	4600:		1590/30,		
									1591/4,		
									1592/21		

LATCH

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#	
VARIOUS 9314	DIP : N 16 : 0/70C		12/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM I	025C 070C 000C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	2000: 2000: 2000: 2000: 2000: 2000:	3.36E 05	0: 0: 0: 0: 0: 19:	MFEF 1593/2, 1594/17	
VARIOUS 9314	DIP : N 16 : 0/70C		12/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM I	025C 070C 000C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	3380: 3380: 3380: 3380: 3380: 3380:	5.68E 05	0: 0: 0: 0: 0: 40:	MFEF 1595/4, 1596/36	
VARIOUS 9334	DIP : N 16 : 0/70C		05/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM I	025C 070C 000C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	300: 300: 300: 300: 300: 300:	5.04E 04	0: 0: 0: 0: 0: 3:	MFEF 1597/1, 1598/2	
VARIOUS 9334	DIP : N 16 : 0/70C		06/76	VIS INS I S&F EM THRMSHK 15CY RFVBIA S&F EM I	025C 070C 000C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	300: 300: 300: 300: 300: 300:	5.04E 04	0: 0: 0: 0: 0: 2:	MFEF 1599/1, 1600/1	

LOGIC UNIT

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE HIGH SPEED TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#	
VARIOUS 74H87	DIP : N 14 : 0/70C		02/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM I	025C 070C 000C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	300: 300: 300: 300: 300: 300:	5.04E 04	0: 0: 0: 0: 0: 6:MFEF 1601/6		
VARIOUS 74H87	DIP : N 14 : 0/70C		12/76	VIS INS I S&F EM THRMSHK 15CY RFVBIA S&F EM I	025C 070C 000C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	1020: 1020: 1020: 1020: 1020: 1020:	1.71E 05	0: 0: 0: 0: 0: 39:MFEF 1602/1, 1603/1, 1604, 29, 1605/8		

LOGIC UNIT

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I. 74181	E-DIP 24	N.R. 0/70C	11/75	SDF EM I	025C		1019:		12:	
				THRMSHK	000C 100C	N.R.	1007:		0:	
				SCYC		N.R.	1007:	1.69E 05	0:	
				REVBIA	120C	N.R.	1007:		0:	
				SDF EM	025C	N.R.	1007:		6:	
				I		N.R.				
VARIOUS 74181	DIP 24	N 0/70C	06/76	VIS INS I		N.R.	348:		0:	
				S&F EM	025C 070C	N.R.	348:		0:	
				I		N.R.	348:		0:	
				TEMPCYC	-055C 125C	MS-883	348:		0:	
				SCY		1010 B	348:	5.85E 04	0:	
				REVBIA	125C	N.R.	348:		0:	
				I		N.R.	348:		3:MFEF 1606/3	
				S&F EM	070C	N.R.				
				I		N.R.				
VARIOUS 8260	DIP 24	N 0/70C	05/76	VIS INS I		N.R.	30:		0:	
				S&F EM	025C 070C	N.R.	30:		0:	
				I		N.R.	30:		0:	
				THRMSHK	000C 100C	MS-883	30:		0:	
				SCY		1011 A	30:	5.04E 03	0:	
				REVBIA	125C	N.R.	30:		0:	
				I		N.R.	30:		0:	
				S&F EM	070C	N.R.				
				I		N.R.				
VARIOUS 9340	DIP 24	N N.R.	03/76	VIS INS I		N.R.	150:		0:	
				S&F EM	025C 070C	N.R.	150:		0:	
				I		N.R.	150:		0:	
				TEMPCYC	-055C 125C	MS-883	150:		0:	
				SCY		1010 B	150:	2.52E 04	0:	
				REVBIA	125C	N.R.	150:		0:	
				I		N.R.	150:		7:MFEF 1607/4, 1608/3	
				S&F EM	070C	N.R.				
				I		N.R.				
VARIOUS 9340	DIP 24	N N.R.	12/76	VIS INS I		N.R.	1157:		0:	
				S&F EM	025C 070C	N.R.	1157:		0:	
				I		N.R.	1157:		0:	
				TEMPCYC	-055C 125C	MS-883	1157:		0:	
				SCY		1010 B	1157:	1.94E 05	0:	
				REVBIA	125C	N.R.	1157:		0:	
				I		N.R.	1157:		12:MFEF 1609/3, 1610/7	
				S&F EM	070C	N.R.				
				I		N.R.				

MULTIPLEXER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 74S153	DIP 16	N 0/70C	09/76	VIS INS I		N.R.	200:		0:	
				S&F EM	025C 070C	N.R.	200:		0:	
				I		N.R.	200:		0:	
				THRMSHK	000C 100C	MS-883	200:		0:	
				SCY		1011 A	200:	3.36E 04	0:	
				REVBIA	125C	N.R.	200:		0:	
				I		N.R.	200:		5:MFEF 1611/1, 1612/4	
				S&F EM	070C	N.R.				
				I		N.R.				

MULTIPLEXER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 74S153	DIP 16	N 0/70C	12/76 I	INS :S&F EM	:025C 070C	:N.R.	175:	:	0:	:
			I	:THRMSHK	:000C 100C	:MS-883	175:	:	0:	:
			I	:15CY	:1011 A		175:	2.94E 04	0:	:
			I	:REVBIA	:125C		175:	:	0:	:
			I	:S&F EM	:070C		175:	:	87:MFEF 1613/1,	:
			I						1614/85,	:
			I						1615/1	:
VARIOUS 74S157	DIP 16	N 0/70C	09/76 I	VIS INS :S&F EM	:025C 070C	:N.R.	175:	:	0:	:
			I	:THRMSHK	:000C 100C	:MS-883	175:	:	0:	:
			I	:15CY	:1011 A		175:	2.94E 04	0:	:
			I	:REVBIA	:125C		175:	:	0:	:
			I	:S&F EM	:070C		175:	:	2:MFEF 1616/1,	:
			I						1617/1	:
VARIOUS 74S157	DIP 16	N 0/70C	09/76 I	VIS INS :S&F EM	:025C 070C	:N.R.	124:	:	0:	:
			I	:THRMSHK	:000C 100C	:MS-883	124:	:	0:	:
			I	:15CY	:1011 A		124:	2.08E 04	0:	:
			I	:REVBIA	:125C		124:	:	0:	:
			I	:S&F EM	:070C		124:	:	2:MFEF 1618/2	:
			I							:
VARIOUS 74S157	DIP 16	N 0/70C	11/76 I	VIS INS :S&F EM	:025C 070C	:N.R.	50:	:	0:	:
			I	:THRMSHK	:000C 100C	:MS-883	50:	:	0:	:
			I	:15CY	:1011 A		50:	8.40E 03	0:	:
			I	:REVBIA	:125C		50:	:	0:	:
			I	:S&F EM	:070C		50:	:	0:	:
			I							:
VARIOUS 74S157	DIP 16	N 0/70C	12/76 I	VIS INS :S&F EM	:025C 070C	:N.R.	36:	:	0:	:
			I	:THRMSHK	:000C 100C	:MS-883	36:	:	0:	:
			I	:15CY	:1011 A		36:	6.05E 03	0:	:
			I	:REVBIA	:125C		36:	:	0:	:
			I	:S&F EM	:070C		36:	:	0:	:
			I							:
VARIOUS 74S158	DIP 16	N 0/70C	03/76 I	VIS INS :S&F EM	:025C 070C	:N.R.	296:	:	0:	:
			I	:THRMSHK	:000C 100C	:MS-883	296:	:	0:	:
			I	:15CY	:1011 A		296:	4.97E 04	0:	:
			I	:REVBIA	:125C		296:	:	0:	:
			I	:S&F EM	:070C		296:	:	7:MFEF 1615/7	:
			I							:
VARIOUS 74S158	DIP 16	N 0/70C	03/76 I	VIS INS :S&F EM	:025C 070C	:N.R.	500:	:	0:	:
			I	:THRMSHK	:000C 100C	:MS-883	500:	:	0:	:
			I	:15CY	:1011 A		500:	8.40E 04	0:	:
			I	:REVBIA	:125C		500:	:	0:	:
			I	:S&F EM	:070C		500:	:	8:MFEF 1620/8	:
			I							:

MULTIPLEXER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLC	FAILURE SUMMARY	#
VARIOUS	DIP	N	06/76	VIS INS			250		0		
74S158	16	0/70C	I	S&F EM	025C 070C	N.R.	250		0		
			I	THRMSHK	000C 100C	N.R.	250		0		
			I	REVBIAS	125C	MS-883 1011 A	250	4.20E 04	0		
			I	S&F FM	070C	N.R.	250		8	MFEF 1621/8	
			I			N.R.					
VARIOUS	DIP	N	07/76	VIS INS			250		0		
74S158	16	0/70C	I	S&F EM	025C 070C	N.R.	250		0		
			I	THRMSHK	000C 100C	N.R.	250		0		
			I	REVBIAS	125C	MS-883 1011 A	250	4.20E 04	0		
			I	S&F EM	070C	N.R.	250		54	MFEF 1622/54	
			I			N.R.					
VARIOUS	DIP	N	08/76	VIS INS			250		0		
74S158	16	0/70C	I	S&F EM	025C 070C	N.R.	250		0		
			I	THRMSHK	000C 100C	N.R.	250		0		
			I	REVBIAS	125C	MS-883 1011 A	250	4.20E 04	0		
			I	S&F EM	070C	N.R.	250		11	MFEF 1623/11	
			I			N.R.					
VARIOUS	DIP	N	09/76	VIS INS			250		0		
74S158	16	0/70C	I	S&F EM	025C 070C	N.R.	250		0		
			I	THRMSHK	000C 100C	N.R.	250		0		
			I	REVBIAS	125C	MS-883 1011 A	250	4.20E 04	0		
			I	S&F EM	070C	N.R.	250		1	MFEF 1624/1	
			I			N.R.					
VARIOUS	DIP	N	03/76	VIS INS			3288		0		
74S257	16	0/70C	I	S&F EM	025C 070C	N.R.	3288		0		
			I	THRMSHK	000C 100C	N.R.	3288		0		
			I	REVBIAS	125C	MS-883 1011 A	3288	5.52E 05	0		
			I	S&F EM	070C	N.R.	3288		24	MFEF 1625/1, 1626/16, 1627/2, 1628/5	
			I			N.R.					
VARIOUS	DIP	N	07/76	VIS INS			3086		0		
74S257	16	0/70C	I	S&F EM	025C 070C	N.R.	3086		0		
			I	THRMSHK	000C 100C	N.R.	3086		0		
			I	REVBIAS	125C	MS-883 1011 A	3086	5.18E 05	0		
			I	S&F EM	070C	N.R.	3086		25	MFEF 1629/25	
			I			N.R.					
VARIOUS	DIP	N	08/76	VIS INS			513		0		
74S257	16	0/70C	I	S&F FM	025C 070C	N.R.	513		0		
			I	THRMSHK	000C 100C	N.R.	513		0		
			I	REVBIAS	125C	MS-883 1011 A	513	8.62E 04	0		
			I	S&F EM	070C	N.R.	513		11	MFEF 1630/11	
			I			N.R.					

MULTIPLEXER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY			BIPOLAR		OPERATIONAL TYPE				SCHOTTKY TTL			
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RRG	TEST SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/*
VARIOUS	DIP	N	11/76	VIS INS				228:		0:		
74S258	16	0/70C	I	S&F EM	025C 070C		N.R.	228:		0:		
			I	THRMSHK	000C 100C		N.R.	228:		0:		
			I	15CY			MS-863 1211 A	228:	3.83E 04	0:		
			I	REVBIA	125C		N.R.	228:		7:MFEF 1631/2,		
			I	S&F EM	070C		N.R.	228:		1632/1, 1633/4:		

MULTIPLEXER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY			BIPOLAR		OPERATIONAL TYPE				LOW POWER TTL			
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RRG	TEST SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/*
T.I.	E-DIP	N.R.	11/75	SDF EM	025C			2142:		59:		
74L153	16	0/70C	I	THRMSHK	000C 100C		N.R.	2143:		0:		
			I	5CYC			N.R.	2383:	4.93E 05	0:		
			I	REVBIA	100C		N.R.	2383:		10:		
			I	SDF EM	025C		N.R.	2383:				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C			24098:		261:		
74L157	16	0/70C	I	THRMSHK	000C 100C		N.R.	23837:		0:		
			I	5CYC			N.R.	23837:	4.93E 06	0:		
			I	REVBIA	100C		N.R.	23837:		85:		
			I	SDF EM	025C		N.R.	23837:				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C			94:		0:		
74L98	16	0/70C	I	THRMSHK	000C 100C		N.R.	94:		0:		
			I	5CYC			N.R.	94:		0:		
			I	REVBIA	100C		N.R.	94:		0:		
			I	SDF EM	025C		N.R.	94:		0:		
			I				N.R.					
VARIOUS	DIP	N.R.	11/75	SDF EM	025C			9663:		57:		
74L157	16	0/70C	I	THRMSHK	000C 100C		N.R.	9606:		0:		
			I	5CYC			N.R.	9606:	1.61E 06	0:		
			I	REVBIA	100C		N.R.	9606:		21:		
			I	SDF EM	025C		N.R.	9606:				

MULTIPLEXER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY			BIPOLAR		OPERATIONAL TYPE				LS TTL			
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RRG	TEST SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/*
T.I.	E-DIP	N.R.	11/75	SDF EM	025C			1270:		7:		
74LS153	16	0/70C	I	THRMSHK	000C 100C		N.R.	1263:		0:		
			I	5CYC			N.R.	1263:	2.12E 05	0:		
			I	REVBIA	100C		N.R.	1263:		15:		
			I	SDF EM	025C		N.R.	1263:				
T.I.	E-DIP	N.R.	01/75	TEMP CYC	-055C 125C			10:		0:		
74LS153	16	0/70C	I	10CY			N.R.	10:	2.40E 02	0:		
			I	REVBIA	100C		N.R.	10:		0:		
			I	EM			N.R.	10:		0:		

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE LS TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
VARIOUS 74LS153	DIP 16	N 0/70C	08/76	VIS INS I			100:		0:		
				S&F EM	025C 070C	N.R.	100:		0:		
				THRMSHK	000C 100C	MS-883	100:		0:		
				15CY		1011 A					
				REVBIA	125C		100:	1.68E 04	0:		
				I		N.R.					
				S&F EM	070C		100:		0:		
				I		N.R.					
VARIOUS 74LS157	DIP 16	N 0/70C	10/76	VIS INS I			2750:		0:		
				S&F EM	025C 070C	N.R.	2750:		0:		
				THRMSHK	000C 100C	MS-883	2750:		0:		
				15CY		1011 A					
				REVBIA	125C		2750:	4.62E 05	0:		
				I		N.R.					
				S&F EM	070C		2750:		31:MFEF 1634/31		
				I		N.R.					
VARIOUS 74LS257	DIP 16	N 0/70C	09/76	VIS INS I			820:		0:		
				S&F EM	025C 070C	N.R.	820:		0:		
				THRMSHK	000C 100C	MS-883	820:		0:		
				15CY		1011 A					
				REVBIA	125C		820:	1.38E 05	0:		
				I		N.R.					
				S&F EM	070C		820:		17:MFEF 1635/17		
				I		N.R.					
VARIOUS 74LS258	DIP 16	N 0/70C	09/76	VIS INS I			100:		0:		
				S&F EM	025C 070C	N.R.	100:		0:		
				THRMSHK	000C 100C	MS-883	100:		0:		
				15CY		1011 A					
				REVBIA	125C		100:	1.68E 04	0:		
				I		N.R.					
				S&F EM	070C		100:		0:		
				I		N.R.					
VARIOUS 74LS258	DIP 16	N 0/70C	11/76	VIS INS I			300:		0:		
				S&F EM	025C 070C	N.R.	300:		0:		
				THRMSHK	000C 100C	MS-883	300:		0:		
				15CY		1011 A					
				REVBIA	125C		300:	5.04E 04	0:		
				I		N.R.					
				S&F EM	070C		300:		11:MFEF 1636/11		
				I		N.R.					

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
NATIONAL R121	E-DIP 16	N.R. 0/70C	11/75	S&F EM	025C		15457:		1:		
				THRMSHK	000C 100C	N.R.	15457:		0:		
				15CY		N.R.					
				REVBIA	100C		15457:	2.60E 06	0:		
				I		N.R.					
				S&F EM	025C		15457:		22:		
				I		N.R.					
SIGNETICS 74153	E-DIP 16	N.R. 0/70C	11/75	S&F EM	025C		494:		1:		
				THRMSHK	000C 100C	N.R.	494:		0:		
				15CY		N.R.					
				REVBIA	100C		494:	8.30E 04	0:		
				I		N.R.					
				S&F EM	025C		494:		1:		
				I		N.R.					

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR			OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TEMP RVS	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOUSE	NO. FIN	FAILURE SUMMARY /#
VARIOUS 74151	DIP 16	N 0/70C	04/76	VIS INS			3860		0	
			I	S&F EM	025C 070C	N.R.	3860		0	
			I	THRMSHK	000C 100C	N.R.	3860		0	
			I	15CY		MS-883	3860		0	
			I	REVBIA	125C	1011 A	3860	6.48E 05	0	
			I	S&F EM	070C	N.R.	3860		23	MFEF 1640/7, 1641/16
			I			N.R.				
VARIOUS 74153	DIP 16	N.R. 0/70C	11/75	SDF EM	025C		8495		70	
			I	THRMSHK	000C 100C	N.R.	8425		0	
			I	15CY		N.R.	8425	1.42E 06	0	
			I	REVBIA	100C	N.R.	8425		22	
			I	SDF EM	025C	N.R.				
VARIOUS 74153	DIP 16	N 0/70C	03/76	VIS INS			560		0	
			I	S&F EM	025C 070C	N.R.	560		0	
			I	THRMSHK	000C 100C	N.R.	560		0	
			I	15CY		MS-883	560		0	
			I	REVBIA	125C	1011 A	560	9.41E 04	0	
			I	S&F EM	070C	N.R.	560		2	MFEF 1642/1, 1643/1
			I			N.R.				
VARIOUS 74153	DIP 16	N 0/70C	05/76	VIS INS			2133		0	
			I	S&F EM	025C 070C	N.R.	2133		0	
			I	THRMSHK	000C 100C	N.R.	2133		0	
			I	15CY		MS-883	2133		0	
			I	REVBIA	125C	1011 A	2133	3.58E 05	0	
			I	S&F EM	070C	N.R.	2133		6	MFEF 1644/1, 1645/5
			I			N.R.				
VARIOUS 74153	DIP 16	N 0/70C	05/76	VIS INS			400		0	
			I	S&F EM	025C 070C	N.R.	400		0	
			I	THRMSHK	000C 100C	N.R.	400		0	
			I	15CY		MS-883	400		0	
			I	REVBIA	125C	1011 A	400	6.72E 04	0	
			I	S&F EM	070C	N.R.	400		6	MFEF 1646/1, 1647/3
			I			N.R.				
VARIOUS 74153	DIP 16	N 0/70C	06/76	VIS INS			507		0	
			I	S&F EM	025C 070C	N.R.	507		0	
			I	THRMSHK	000C 100C	N.R.	507		0	
			I	15CY		MS-883	507		0	
			I	REVBIA	125C	1011 A	507	8.52E 04	0	
			I	S&F EM	070C	N.R.	507		0	
			I			N.R.				
VARIOUS 74153	DIP 16	N 0/70C	08/76	VIS INS			1000		0	
			I	S&F EM	025C 070C	N.R.	1000		0	
			I	THRMSHK	000C 100C	N.R.	1000		0	
			I	15CY		MS-883	1000		0	
			I	REVBIA	125C	1011 A	1000	1.68E 05	0	
			I	S&F EM	070C	N.R.	1000		2	MFEF 1648/1
			I			N.R.				

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RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
VARIOUS	DIP	N	08/76	VIS INS			1000:		0:		
74153	16	0/70C	I	S&F EM	025C 070C	N-R.	1000:		0:		
			I	THRMSHK	000C 100C	MS-883	1000:		0:		
			I	15CY		1011 A	1000:		0:		
			I	REVBias	125C		1000:	1-68E 05	0:		
			I	S&F EM	070C	N-R.	1000:		4:MFEF	1649/4	
			I			N-R.					
VARIOUS	DIP	N	10/76	VIS INS			1000:		0:		
74153	16	0/70C	I	S&F EM	025C 070C	N-R.	1000:		0:		
			I	THRMSHK	000C 100C	MS-883	1000:		0:		
			I	15CY		1011 A	1000:		0:		
			I	REVBias	125C		1000:	1-68E 05	0:		
			I	S&F EM	070C	N-R.	1000:		3:MFEF	1650/3	
			I			N-R.					
VARIOUS	DIP	N-R.	11/75	SDF EM	025C		682:		5:		
74157	16	0/70C	I	THRMSHK	000C 100C	N-R.	677:		0:		
			I	15CY		N-R.	677:		0:		
			I	REVBias	100C		677:	1-14E 05	0:		
			I	SDF EM	025C	N-R.	677:		1:		
			I			N-R.					
VARIOUS	DIP	N	03/76	VIS INS			1410:		0:		
74157	16	0/70C	I	S&F EM	025C 070C	N-R.	1410:		0:		
			I	THRMSHK	000C 100C	MS-883	1410:		0:		
			I	15CY		1011 A	1410:		0:		
			I	REVBias	125C		1410:	2-37E 05	0:		
			I	S&F EM	070C	N-R.	1410:		18:MFEF	1651/6,	
			I			N-R.				1652/12	
VARIOUS	DIP	N	10/76	VIS INS			3005:		0:		
74157	16	0/70C	I	S&F EM	025C 070C	N-R.	3005:		0:		
			I	THRMSHK	000C 100C	MS-883	3005:		0:		
			I	15CY		1011 A	3005:		0:		
			I	REVBias	125C		3005:	5-05E 05	0:		
			I	S&F EM	070C	N-R.	3005:		24:MFEF	1653/12,	
			I			N-R.				1654/7, 1655/1,	
										1656/4	
VARIOUS	DIP	N	10/76	VIS INS			500:		0:		
74157	16	0/70C	I	S&F EM	025C 070C	N-R.	500:		0:		
			I	THRMSHK	000C 100C	MS-883	500:		0:		
			I	15CY		1011 A	500:		0:		
			I	REVBias	125C		500:	8-40E 04	0:		
			I	S&F EM	070C	N-R.	500:		3:MFEF	1657/3	
			I			N-R.					
VARIOUS	DIP	N	10/76	VIS INS			1535:		0:		
74157	16	0/70C	I	S&F EM	025C 070C	N-R.	1535:		0:		
			I	THRMSHK	000C 100C	MS-883	1535:		0:		
			I	15CY		1011 A	1535:		0:		
			I	REVBias	125C		1535:	2-58E 05	0:		
			I	S&F EM	070C	N-R.	1535:		9:MFEF	1658/9	
			I			N-R.					

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TNP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	INO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
VARIOUS 74157	DIP 16	N 0/70C	08/76 I	VIS INS :S&F EM	:025C 070C	N.R.	832: 832:		0: 0:		
			I	:THRMSHK	:000C 100C	MS-883	832:		0:		
			I	:15CY		1011 A	832:		0:		
			I	:REVBIA	:125C		832:	1.40E 05	0:		
			I	:S&F EM	:070C	N.R.	832:		10:MFEF 1659/2,		
			I			N.R.			1660/7		
VARIOUS 8309/9309	DIP 16	N 0/70C	02/76 I	VIS INS :S&F EM	:025C 070C	N.R.	250: 250:		0: 0:		
			I	:THRMSHK	:000C 100C	MS-883	250:		0:		
			I	:15CY		1011 A	250:		0:		
			I	:REVBIA	:125C		250:	4.20E 04	0:		
			I	:S&F EM	:070C	N.R.	250:		1:		
			I			N.R.					
VARIOUS 8309/9309	DIP 16	N 0/70C	10/76 I	VIS INS :S&F EM	:025C 070C	N.R.	5132: 5132:		0: 0:		
			I	:THRMSHK	:000C 100C	MS-883	5132:		0:		
			I	:15CY		1011 A	5132:		0:		
			I	:REVBIA	:125C		5132:	8.62E 05	0:		
			I	:S&F EM	:070C	N.R.	5132:		63:MFEF 1661/8,		
			I			N.R.			1662/31,		
			I						1663/2		
VARIOUS 8309/9309	DIP 16	N 0/70C	05/76 I	VIS INS :S&F EM	:025C 070C	N.R.	298: 298:		0: 0:		
			I	:THRMSHK	:000C 100C	MS-883	298:		0:		
			I	:15CY		1011 A	298:		0:		
			I	:REVBIA	:125C		298:	5.01E 04	0:		
			I	:S&F EM	:070C	N.R.	298:		6:MFEF 1664/6		
			I			N.R.					
VARIOUS 8309/9309	DIP 16	N 0/70C	07/76 I	VIS INS :S&F EM	:025C 070C	N.R.	189: 189:		0: 0:		
			I	:THRMSHK	:000C 100C	MS-883	189:		0:		
			I	:15CY		1011 A	189:		0:		
			I	:REVBIA	:125C		189:	3.18E 04	0:		
			I	:S&F EM	:070C	N.R.	189:		5:MFEF 1665/5		
			I			N.R.					
VARIOUS 8309/9309	DIP 16	N 0/70C	08/76 I	VIS INS :S&F EM	:025C 070C	N.R.	300: 300:		0: 0:		
			I	:THRMSHK	:000C 100C	MS-883	300:		0:		
			I	:15CY		1011 A	300:		0:		
			I	:REVBIA	:125C		300:	5.04E 04	0:		
			I	:S&F EM	:070C	N.R.	300:		0:		
			I			N.R.					
VARIOUS 8309/9309	DIP 16	N 0/70C	09/76 I	VIS INS :S&F EM	:025C 070C	N.R.	1511: 1511:		0: 0:		
			I	:THRMSHK	:000C 100C	MS-883	1511:		0:		
			I	:15CY		1011 A	1511:		0:		
			I	:REVBIA	:125C		1511:	2.54E 05	0:		
			I	:S&F EM	:070C	N.R.	1511:		8:MFEF 1666/8		
			I			N.R.					

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OPERATIONAL TYPE TTL

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ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
VARIOUS	DIP : N 16 : 0/70C		12/76	VIS INS			404:		0:		
			1	S&F EM	025C 070C	N.R.	404:		0:		
			1	THRM SHK	000C 100C	N.R.	404:		0:		
			1	15CY		MS-883 1011 A	404:		0:		
			1	REVBIAS	125C		404:	6.29E 04	0:		
			1	S&F EM	070C	N.R.	404:		10:MFEF 1586/2, 1687/7		
			1			N.R.					
VARIOUS	DIP : N 16 : 0/70C		12/76	VIS INS			300:		0:		
			1	S&F EM	025C 070C	N.R.	300:		0:		
			1	THRM SHK	000C 100C	N.R.	300:		0:		
			1	15CY		MS-883 1011 A	300:		0:		
			1	REVBIAS	125C		300:	5.04E 04	0:		
			1	S&F EM	070C	N.R.	300:		1:MFEF 1688/1		
			1			N.R.					

SHIFT REGISTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
T.I. 74LS195	E-DIP : N 16 : 0/70C		11/75	S&F EM	025C		6004:		72:		
			1	THRM SHK	000C 100C	N.R.	5932:		0:		
			1	15CY		N.R.	5932:		0:		
			1	REVBIAS	100C		5932:	9.97E 05	0:		
			1	S&F EM	025C	N.R.	5932:		25:		
			1			N.R.					
VARIOUS 74LS164	DIP : N 14 : 0/70C		109/76	VIS INS			1850:		0:		
			1	S&F EM	025C 070C	N.R.	1850:		0:		
			1	THRM SHK	000C 100C	N.R.	1850:		0:		
			1	15CY		MS-883 1011 A	1850:		0:		
			1	REVBIAS	125C		1850:	3.11E 05	0:		
			1	S&F EM	070C	N.R.	1850:		9:MFEF 1689/9		
			1			N.R.					

SHIFT REGISTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
SIGMETICS 54164	DIP : N 14 : -55/125		03/75	VIS INS	30X	MM38510	426:		0:		
			0	75X		2010 B					
			0	SAFE	150C	MM38510	426:	1-02E 04	0:		
			0	TEMP CYC	-065C 150C	MM38510	426:		0:		
			0	10CY		1010 C					
			0	CNSTACC	30X 1 AXIS	MM38510	426:		0:		
			0	A MIN E		2001 E					
			0	FINE LE	WE 5.E-R	MM38510	426:		6:		
			0	40 MIN		1014 A					
			0	GROSS LE	FLEOR 125C	MM38510	420:		2:		
			0	3X		1014 C					
			0	EM	025C	MM38510	418:		0:		
			0			N.R.					
			0	PAR ETC	125C	MM38510	418:	7-02E 04	0:		
			0	S&F EM	-055C 025C	MM38510	418:		14:		
			0	125C		N.R.					
			0	VIS INS	3X	MM38510	404:		0:		
			0		20X	2009					

SHIFT REGISTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY			BIPOLAR		OPERATIONAL TYPE TTL					
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SIGNETICS 74195	E-DIP 16	N.R. 0/70C	11/75 I	SDF EM	025C		1704		9	
				THRMSHK	000C	100C	1695		0	
				5CYC			1695	2.85E 05	0	
				REVBIA	100C		1695		19	
				SDF EM	025C					
				I						
SIGNETICS 7495	E-DIP 14	N.R. 0/70C	11/75 I	SDF EM	025C		2		2	
				THRMSHK	000C	100C	130		0	
				5CYC			130	2.18E 04	0	
				REVBIA	100C		130		1	
				SDF EM	025C					
				I						
T.I. 74198	E-DIP 24	N.R. 0/70C	11/75 I	SDF EM	025C		28		0	
				THRMSHK	000C	100C	28		0	
				5CY			28	4.70E 03	0	
				REVBIA	100C		28		0	
				SDF EM	025C					
				I						
VARIOUS 74164	DIP 14	N.R. 0/70C	11/75 I	SDF EM	025C		916		252	
				THRMSHK	000C	100C	664		0	
				5CYC			664	1.12E 05	0	
				REVBIA	100C		664		0	
				SDF EM	025C					
				I						
VARIOUS 74164	DIP 14	N 0/70C	05/76 I	VIS INS			1138		0	
				S&F EM	025C	070C	1138		0	
				THRMSHK	000C	100C	1138		0	
				15CY			1138	1.91E 05	0	
				REVBIA	125C		1138		4:MFEF 1690/1, 1691/3	
				S&F EM	070C					
VARIOUS 74164	DIP 14	N 0/70C	06/76 I	VIS INS			2902		0	
				S&F EM	025C	070C	2902		0	
				THRMSHK	000C	100C	2902		0	
				15CY			2902	4.88E 05	0	
				REVBIA	125C		2902		10: MFEF 1692/1, 1693/4, 1694/12	
				S&F EM	070C					
VARIOUS 74164	DIP 14	N 0/70C	06/76 I	VIS INS			2000		0	
				S&F EM	025C	070C	2000		0	
				THRMSHK	000C	100C	2000		0	
				15CY			2000	3.36E 05	0	
				REVBIA	125C		2000		8:MFEF 1695/1, 1696/6	
				S&F EM	070C					

SHIFT REGISTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY		BIPOLAR		OPERATIONAL TYPE		ITL													
MANUFACTURER	PFG/	SCR CL/	DATE/	TFST	STRFS	SPEC.	NO.	DEVICE	NO.	FAILURE									
PART NO	PINS	TEMP RRG	SRC	TYPE	LFVCL	REF.	TEST	HOURS	FLD	SUMMARY	/#								
VARIOUS	DIP	N	08/76	VIS INS			941:		0:										
74164	14	0/70C	I	S&F FM	025C 070C	N.R.	941:		0:										
			I	THRMSHK	000C 100C	N.R.	941:		0:										
			I	15CY		MS-883	941:		0:										
			I	RFVBIAS	125C	1011 A	941:	1.58E 05	0:										
			I	S&F FM	070C	N.R.	941:		7:MFEF 1697/2.										
			I			N.R.	941:		1698/2										
VARIOUS	DIP	N	09/76	VIS INS			440:		0:										
74164	14	0/70C	I	S&F EM	025C 070C	N.R.	440:		0:										
			I	THRMSHK	000C 100C	N.R.	440:		0:										
			I	15CY		MS-883	440:		0:										
			I	REVBIA	125C	1011 A	440:	7.39E 04	0:										
			I	S&F EM	070C	N.R.	440:		22:MFEF 1699/22										
			I			N.R.	440:												
VARIOUS	DIP	N	10/76	VIS INS			657:		0:										
74164	14	0/70C	I	S&F EM	025C 070C	N.R.	657:		0:										
			I	THRMSHK	000C 100C	N.R.	657:		0:										
			I	15CY		MS-883	657:		0:										
			I	RFVBIAS	125C	1011 A	657:	1.16E 05	0:										
			I	S&F EM	070C	N.R.	657:		1:MFEF 1700/1										
			I			N.R.	657:												
VARIOUS	DIP	N	03/76	VIS INS			3115:		0:										
74164	14	0/70C	I	S&F EM	025C 070C	N.R.	3115:		0:										
			I	THRMSHK	000C 100C	N.R.	3115:		0:										
			I	15CY		MS-883	3115:		0:										
			I	RFVBIAS	125C	1011 A	3115:	5.23E 05	0:										
			I	S&F EM	070C	N.R.	3115:		157:MFEF 1701/1.										
			I			N.R.	3115:		1702/60										
VARIOUS	DIP	N	08/76	VIS INS			2247:		0:										
74164	14	0/70C	I	S&F FM	025C 070C	N.R.	2247:		0:										
			I	THRMSHK	000C 100C	N.R.	2247:		0:										
			I	15CY		MS-883	2247:		0:										
			I	RFVBIAS	125C	1011 A	2247:	3.77E 05	0:										
			I	S&F FM	070C	N.R.	2247:		15:MFEF 1703/3.										
			I			N.R.	2247:		1704/12										
VARIOUS	DIP	N	12/76	VIS INS			1000:		0:										
74164	14	0/70C	I	S&F FM	025C 070C	N.R.	1000:		0:										
			I	THRMSHK	000C 100C	N.R.	1000:		0:										
			I	15CY		MS-883	1000:		0:										
			I	RFVBIAS	125C	1011 A	1000:	1.68E 05	0:										
			I	S&F FM	070C	N.R.	1000:		3:MFEF 1705/3										
			I			N.R.	1000:												
VARIOUS	DIP	N	12/76	VIS INS			119:		0:										
74164	14	0/70C	I	S&F FM	025C 070C	N.R.	119:		0:										
			I	THRMSHK	000C 100C	N.R.	119:		0:										
			I	15CY		MS-883	119:		0:										
			I	RFVBIAS	125C	1011 A	119:	2.00E 04	0:										
			I	S&F FM	070C	N.R.	119:		0:										
			I			N.R.	119:												

SHIFT REGISTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
VARIOUS 74164	DIP : N 14 : 0/70C	12/76	VIS INS	I	S&F EM : 025C 070C	N.R.	160:		0:	
				I	THRMSHK : 000C 100C	N.R.	160:		0:	
				I	15CY	MS-883	160:		0:	
				I	RFVBIAS : 125C	1011 A	160:	2.69E 04	0:	
				I	S&F EM : 070C	N.R.	160:		4:MFEF 1706/3	
				I		N.R.				
VARIOUS 74164	DIP : N 14 : 0/70C	02/76	VIS INS	I	S&F EM : 025C 070C	N.R.	510:		0:	
				I	THRMSHK : 000C 100C	N.R.	510:		0:	
				I	15CY	MS-883	510:		0:	
				I	REVBIAS : 125C	1011 A	510:	8.57E 04	0:	
				I	S&F EM : 070C	N.R.	510:		13:MFEF 1707/9, 1708/4	
				I		N.R.				
VARIOUS 74165	N.R. : N 16 : 0/70C	02/76	VIS INS	I	S&F EM : 025C 070C	N.R.	2010:		0:	
				I	THRMSHK : 000C 100C	N.R.	2010:		0:	
				I	15CY	MS-883	2010:		0:	
				I	REVBIAS : 125C	1011 A	2010:	3.38E 05	0:	
				I	S&F EM : 070C	N.R.	2010:		3:MFEF 1709/2, 1710/1	
				I		N.R.				
VARIOUS 74165	DIP : N 16 : 0/70C	02/76	VIS INS	I	S&F EM : 025C 070C	N.R.	1517:		0:	
				I	THRMSHK : 000C 100C	N.R.	1517:		0:	
				I	15CY	MS-883	1517:		0:	
				I	RFVBIAS : 125C	1011 A	1517:	2.55E 05	0:	
				I	S&F EM : 070C	N.R.	1517:		11:MFEF 1711/2, 1712/9	
				I		N.R.				
VARIOUS 74165	DIP : N 16 : 0/70C	04/76	VIS INS	I	S&F EM : 025C 070C	N.R.	618:		0:	
				I	THRMSHK : 000C 100C	N.R.	618:		0:	
				I	15CY	MS-883	618:		0:	
				I	RFVBIAS : 125C	1011 A	618:	1.04E 05	0:	
				I	S&F EM : 070C	N.R.	618:		5:MFEF 1713/5	
				I		N.R.				
VARIOUS 74165	DIP : N 16 : 0/70C	05/76	VIS INS	I	S&F EM : 025C 070C	N.R.	3999:		0:	
				I	THRMSHK : 000C 100C	N.R.	3999:		0:	
				I	15CY	MS-883	3999:		0:	
				I	REVBIAS : 125C	1011 A	3999:	6.72E 05	0:	
				I	S&F EM : 070C	N.R.	3999:		8:MFEF 1714/8	
				I		N.R.				
VARIOUS 74165	DIP : N 16 : 0/70C	05/76	VIS INS	I	S&F EM : 025C 070C	N.R.	3998:		0:	
				I	THRMSHK : 000C 100C	N.R.	3998:		0:	
				I	15CY	MS-883	3998:		0:	
				I	RFVBIAS : 125C	1011 A	3998:	6.72E 05	0:	
				I	S&F EM : 070C	N.R.	3998:		53:MFEF 1715/1, 1716/52	
				I		N.R.				

SHIFT REGISTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRFSS	SPEC.	NO.	DEVICE	NO.	FAILURE	
PART NO	PINE	TEMP RNC	SRC	TYPE	LFVEL	REF.	TEST	HOURS	FLD	SUMMARY	/#
VARIOUS	DIP	N	08/76	VIS INS			500:		0:		
74165	16	0/70C	I	S&F EM	025C 070C	N.R.	500:		0:		
			I	THRMSHK	000C 100C	N.R.	500:		0:		
			I	15CY		MS-883	500:		0:		
			I	REVBIA	125C	1011 A	500:	8.40E 04	0:		
			I	S&F EM	070C	N.R.	500:		1:MFEF	1717/1	
			I			N.R.					
VARIOUS	DIP	N	08/76	VIS INS			4500:		0:		
74165	16	0/70C	I	S&F EM	025C 070C	N.R.	4500:		0:		
			I	THRMSHK	000C 100C	N.R.	4500:		0:		
			I	15CY		MS-883	4500:		0:		
			I	REVBIA	125C	1011 A	4500:	7.56E 05	0:		
			I	S&F EM	070C	N.R.	4500:		31:MFEF	1718/7,	
			I			N.R.			1719/22		
VARIOUS	DIP	N	12/76	VIS INS			450:		0:		
74165	16	0/70C	I	S&F EM	025C 070C	N.R.	450:		0:		
			I	THRMSHK	000C 100C	N.R.	450:		0:		
			I	15CY		MS-883	450:		0:		
			I	REVBIA	125C	1011 A	450:	7.56E 04	0:		
			I	S&F EM	070C	N.R.	450:		0:		
			I			N.R.					
VARIOUS	DIP	N	12/76	VIS INS			150:		0:		
74165	16	0/70C	I	S&F FM	025C 070C	N.R.	150:		0:		
			I	THRMSHK	000C 100C	N.R.	150:		0:		
			I	15CY		MS-883	150:		0:		
			I	REVBIA	125C	1011 A	150:	2.52E 04	0:		
			I	S&F EM	070C	N.R.	150:		0:		
			I			N.R.					
VARIOUS	DIP	N	02/76	VIS INS			1303:		0:		
74194	16	0/70C	I	S&F EM	025C 070C	N.R.	1303:		0:		
			I	THRMSHK	000C 100C	N.R.	1303:		0:		
			I	15CY		MS-883	1303:		0:		
			I	REVBIA	125C	1011 A	1303:	2.19E 05	0:		
			I	S&F FM	070C	N.R.	1303:		12:MFEF	1720/2,	
			I			N.R.			1721/10		
VARIOUS	DIP	N	12/76	VIS INS			1911:		0:		
74194	16	0/70C	I	S&F EM	025C 070C	N.R.	1911:		0:		
			I	THRMSHK	000C 100C	N.P.	1911:		0:		
			I	15CY		MS-883	1911:		0:		
			I	REVBIA	125C	1011 A	1911:	3.21E 05	0:		
			I	S&F EM	070C	N.R.	1911:		26:MFEF	1722/3,	
			I			N.R.			1723/2		
VARIOUS	DIP	N.R.	11/75	SDF FM	025C		1364:		117:		
74195	16	0/70C	I	THRMSHK	000C 100C	N.R.	1247:		0:		
			I	15CY		N.R.	1247:	2.09E 05	0:		
			I	REVBIA	100C	N.R.	1247:		5:		
			I	SDF FM	025C	N.R.	1247:				

SHIFT REGISTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ THP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	//
VARIOUS 74195	DIP : N 16 : 0/70C	05/76	I	VIS INS			1598:		0:		
			I	S&F EM	025C 070C	N.R.	1598:		0:		
			I	THRMSHK	000C 100C	MS-883	1598:		0:		
			I	15CY		1011 A	1598:		0:		
			I	REVBIA	125C		1598:	2.68E 05	0:		
			I	S&F EM	070C	N.R.	1598:		0:		
			I			N.R.	1598:		38:MFEF 1724/20,		
									1725/13,		
									1726/5		
VARIOUS 7495	DIP : N 14 : 0/70C	05/76	I	VIS INS			960:		0:		
			I	S&F EM	025C 070C	N.R.	960:		0:		
			I	THRMSHK	000C 100C	MS-883	960:		0:		
			I	15CY		1011 A	960:		0:		
			I	REVBIA	125C		960:	1.61E 05	0:		
			I	S&F EM	070C	N.R.	960:		0:		
			I			N.R.	960:		10:MFEF 1727/3,		
									1728/2, 1729/5		
VARIOUS 7495	DIP : N 14 : 0/70C	07/76	I	VIS INS			300:		0:		
			I	S&F EM	025C 070C	N.R.	300:		0:		
			I	THRMSHK	000C 100C	MS-883	300:		0:		
			I	15CY		1011 A	300:		0:		
			I	REVBIA	125C		300:	5.04E 04	0:		
			I	S&F EM	070C	N.R.	300:		0:		
			I			N.R.	300:		2:MFEF 1730/2		
VARIOUS 7495	DIP : N 14 : 0/70C	10/76	I	VIS INS			481:		0:		
			I	S&F EM	025C 070C	N.R.	481:		0:		
			I	THRMSHK	000C 100C	MS-883	481:		0:		
			I	15CY		1011 A	481:		0:		
			I	REVBIA	125C		481:	8.08E 04	0:		
			I	S&F EM	070C	N.R.	481:		0:		
			I			N.R.	481:		21:MFEF 1731/1,		
									1732/3		
VARIOUS 7495	DIP : N 14 : 0/70C	07/76	I	VIS INS			900:		0:		
			I	S&F EM	025C 070C	N.R.	900:		0:		
			I	THRMSHK	000C 100C	MS-883	900:		0:		
			I	15CY		1011 A	900:		0:		
			I	REVBIA	125C		900:	1.51E 05	0:		
			I	S&F EM	070C	N.R.	900:		0:		
			I			N.R.	900:		30:MFEF 1733/30		
VARIOUS 7495	DIP : N 14 : 0/70C	12/76	I	VIS INS			194:		0:		
			I	S&F EM	025C 070C	N.R.	194:		0:		
			I	THRMSHK	000C 100C	MS-883	194:		0:		
			I	15CY		1011 A	194:		0:		
			I	REVBIA	125C		194:	3.26E 04	0:		
			I	S&F EM	070C	N.R.	194:		0:		
			I			N.R.	194:		4:MFEF 1734/4		
VARIOUS 7496	DIP : N 16 : 0/70C	05/76	I	VIS INS			250:		0:		
			I	S&F EM	025C 070C	N.R.	250:		0:		
			I	THRMSHK	000C 100C	MS-883	250:		0:		
			I	15CY		1011 A	250:		0:		
			I	REVBIA	125C		250:	4.20E 04	0:		
			I	S&F EM	070C	N.R.	250:		0:		
			I			N.R.	250:		5:MFEF 1735/5		

SHIFT REGISTER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 7496	DIP 16	N 0/70C	09/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM	025C 070C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	100 100 100 100 100	1.68E 04	0 0 0 0 2:MFEF 1736/2	
VARIOUS 7496	DIP 16	N 0/70C	10/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM	025C 070C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	200 200 200 200 200	3.36E 04	0 0 0 0 0	
VARIOUS 7496	DIP 16	N 0/70C	11/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F FM	025C 070C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	350 350 350 350 350	5.98E 04	0 0 0 0 7:MFEF 1737/6	
VARIOUS 7496	DIP 16	N 0/70C	05/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM	025C 070C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	345 345 345 345 345	5.80E 04	0 0 0 0 6:MFEF 1738/2, 1739/4	
VARIOUS 8202	DIP 24	N 0/70C	02/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM	025C 070C 100C 125C 070C	N.P. N.R. MS-883 1011 A N.R. N.R.	105 105 105 105 105	1.76E 04	0 0 0 0 1:MFEF 1740/1	
VARIOUS 8202	DIP 24	N 0/70C	03/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM	025C 070C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	200 200 200 200 200	3.36E 04	0 0 0 0 2:MFEF 1741/2	
VARIOUS 8202	DIP 24	N 0/70C	03/76	VIS INS I S&F EM THRMSHK 15CY REVBIA S&F EM	025C 070C 100C 125C 070C	N.R. N.R. MS-883 1011 A N.R. N.R.	136 136 136 136 136	2.28E 04	0 0 0 0 2:MFEF 1742/1, 1743/1	

PART NO	PINS	TEMP	RNG	SPC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY	10
VARIOUS	DIP	N		05/76	VIS INS			150:		0:		
8202	24	0/70C		I	S&F EM	025C 070C	N.R.	150:		0:		
				I	THRMSHK	000C 100C	N.R.	150:		0:		
				I	15CY		MS-883	150:		0:		
				I	REVBias	125C	1011 A	150:	2.52E 04	0:		
				I	S&F EM	070C	N.R.	150:		1:MFEF 1744/1		
				I			N.R.					
VARIOUS	DIP	N		06/76	VIS INS			149:		0:		
8202	24	0/70C		I	S&F EM	025C 070C	N.R.	149:		0:		
				I	THRMSHK	000C 100C	N.R.	149:		0:		
				I	15CY		MS-883	149:		0:		
				I	REVBias	125C	1011 A	149:	2.50E 04	0:		
				I	S&F EM	070C	N.R.	149:		0:		
				I			N.R.					
VARIOUS	DIP	N		07/76	VIS INS			51:		0:		
8203	24	0/70C		I	S&F EM	025C 070C	N.R.	51:		0:		
				I	THRMSHK	000C 100C	N.R.	51:		0:		
				I	15CY		MS-883	51:		0:		
				I	REVBias	125C	1011 A	51:	6.57E 03	0:		
				I	S&F EM	070C	N.R.	51:		3:MFEF 1745/2, 1746/1		
				I			N.R.					
VARIOUS	DIP	N		05/76	VIS INS			100:		0:		
8274	16	0/70C		I	S&F EM	025C 070C	N.R.	100:		0:		
				I	THRMSHK	000C 100C	N.R.	100:		0:		
				I	15CY		MS-883	100:		0:		
				I	REVBias	125C	1011 A	100:	1.68E 04	0:		
				I	S&F EM	070C	N.R.	100:		3:MFEF 1747/3		
				I			N.R.					
VARIOUS	DIP	N		07/76	VIS INS			25:		0:		
9300	16	0/70C		I	S&F EM	025C 070C	N.R.	25:		0:		
				I	THRMSHK	000C 100C	N.R.	25:		0:		
				I	15CY		MS-883	25:		0:		
				I	REVBias	125C	1011 A	25:	4.20E 03	0:		
				I	S&F EM	070C	N.R.	25:		0:		
				I			N.R.					

DECODER

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE ECL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. RFF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	//
MOTOROLA 10561	DIP 16	N -55/125	03/76	BAKE	230C		5:	3.60E 02	0:		
				STAT EM	IL 70 MA	N.R.	5:		0:		
				Q		N.R.					
				BAKE	240C		5:	3.60E 02	0:		
				STAT EM	IL 70 MA	N.R.	5:		0:		
				Q		N.R.					
				BAKE	250C		5:	3.60E 02	0:		
				STAT EM	IL 70 MA	N.R.	5:		0:		
				Q		N.R.					
				EM			5:		0:		
				Q		N.R.					
				BAKE	260C		5:	3.60E 02	0:		
				STAT EM	IL 70 MA	N.R.	5:		0:		
				Q		N.R.					
				BAKE	270C		5:	3.60E 02	0:		
				STAT EM	IL 70 MA	N.R.	5:		0:		
				Q		N.R.					
				BAKE	280C		5:	3.60E 02	0:		
				STAT EM	IL 70 MA	N.R.	5:		0:		
				Q		N.R.					
				BAKE	290C		3:	2.88E 02	0:		
				STAT EM	IL 70 MA	N.R.	3:		0:		
				Q		N.R.					
MOTOROLA 10561	DIP 16	N -55/125	03/76	BAKE	230C		5:	3.60E 02	0:		
				STAT EM	IL 50 MA	N.R.	5:		0:		
				Q		N.R.					
				BAKE	240C		5:	3.60E 02	0:		
				STAT EM	IL 50 MA	N.R.	5:		0:		
				Q		N.R.					
				BAKE	250C		5:	3.60E 02	0:		
				STAT EM	IL 50 MA	N.R.	5:		0:		
				Q		N.R.					
				BAKE	260C		5:	3.60E 02	0:		
				STAT EM	IL 50 MA	N.R.	5:		0:		
				Q		N.R.					
				BAKE	270C		4:	2.88E 02	0:		
				STAT EM	IL 50 MA	N.R.	4:		0:		
				Q		N.R.					
				BAKE	280C		4:	2.88E 02	0:		
				STAT EM	IL 50 MA	N.R.	4:		0:		
				Q		N.R.					
				BAKE	290C		4:	2.88E 02	0:		
				STAT EM	IL 50 MA	N.R.	4:		0:		
				Q		N.R.					
MOTOROLA 10561	DIP 16	N -55/125	03/76	BAKE	300C		10:	7.20E 02	0:		
				STAT EM		N.R.	10:		0:		
				Q		N.R.					
				BAKE	310C		10:	7.20E 02	0:		
				STAT EM		N.R.	10:		0:		
				Q		N.R.					
				STGLIFE	325C		10:	2.87E 03	0:		
				STAT EM		N.R.	10:		0:		
				Q		N.R.					
				BAKE	340C		10:	7.20E 02	0:		
				STAT EM		N.R.	10:		0:		
				Q		N.R.					

PEC-DEMUX

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	//
FAIRCHILD 95138	DIP 16	N -55/125	06/76	Q	STGLIFE : 250C	N.R.	5:	3.60E 02	0:		
				Q	STAT EM :	N.R.	5:		0:		
				Q	STGLIFE : 270C	N.R.	5:	3.60E 02	0:		
				Q	STAT EM :	N.R.	5:		0:		
				Q	STGLIFE : 300C	N.R.	5:	3.60E 02	0:		
				Q	STAT EM :	N.R.	5:		0:		
				Q	STGLIFE : 320C	N.R.	5:	3.60E 02	0:		
				Q	STAT EM :	N.R.	5:		0:		
				Q	STGLIFE : 345C	N.P.	5:	3.60E 02	0:		
				Q	STAT EM :	N.R.	5:		0:		
FAIRCHILD 95138	DIP 5	N -55/125	06/76	Q	REVBIA : 225C	N.R.	5:	3.60E 02	0:		
				Q	STAT EM :	N.R.	5:		0:		
				Q	REVBIA : 240C	N.R.	5:	3.60E 02	0:		
				Q	STAT EM :	N.R.	5:		0:		
				Q	REVBIA : 255C	N.R.	5:	3.60E 02	0:		
				Q	STAT EM :	N.R.	5:		0:		
				Q	REVBIA : 265C	N.R.	5:	3.60E 02	0:		
				Q	STAT EM :	N.R.	5:		0:		
				Q	REVBIA : 275C	N.R.	5:	3.60E 02	0:		
				Q	STAT EM :	N.R.	5:		0:		
				Q	REVBIA : 285C	N.R.	5:	3.60E 02	0:		
				Q	STAT EM :	N.R.	5:		0:		
T-1. 54S138	DIP 16	N -55/125	06/76	Q	STGLIFE : 250C	N.R.	5:	3.60E 02	0:		
				Q	STAT EM :	N.R.	5:		0:		
				Q	STGLIFE : 270C	N.R.	5:	3.60E 02	0:		
				Q	STAT EM :	N.R.	5:		0:		
				Q	STGLIFE : 300C	N.R.	5:	3.60E 02	0:		
				Q	STAT EM :	N.R.	5:		0:		
				Q	STGLIFE : 320C	N.R.	5:	3.60E 02	0:		
				Q	STAT EM :	N.R.	5:		0:		
				Q	STGLIFE : 345C	N.R.	5:	3.60E 02	0:		
				Q	STAT EM :	N.R.	5:		0:		
				Q	STAT EM :	N.R.	5:		0:		

DEC-DEMUX

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TEMP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY /#
T.I.		DIP : N	06/76	REVBIA	225C		5:	3.60E 02	0:	
54S138	16	-55/125	Q	STAT EM		N.R.	5:		0:	
			Q	REVBIA	240C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM		N.R.	5:		0:	
			Q	REVBIA	255C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM		N.R.	5:		0:	
			Q	REVBIA	265C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM		N.R.	5:		0:	
			Q	REVBIA	275C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM		N.R.	5:		0:	
			Q	REVBIA	285C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM		N.R.	5:		0:	
			Q			N.R.	5:		0:	

DEC-DEMUX

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LS TTL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TEMP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY /#
T.I.		DIP : N	06/76	STGLIFE	250C		5:	3.60E 02	0:	
54LS138	16	-55/125	Q	STAT EM		N.R.	5:		0:	1:MFEF 1795/1
			Q	STGLIFE	270C	N.R.	4:	2.88E 02	0:	
			Q	STAT EM		N.R.	4:		0:	
			Q	STGLIFE	300C	N.R.	4:	2.88E 02	0:	
			Q	STAT EM		N.R.	4:		0:	
			Q	STGLIFE	320C	N.R.	4:	2.88E 02	0:	
			Q	STAT EM		N.R.	4:		0:	
			Q	STGLIFF	345C	N.R.	4:	2.88E 02	0:	
			Q	STAT EM		N.R.	4:		0:	
T.I.		DIP : N	06/76	REVBIA	235C		5:	3.60E 02	0:	
54LS138	16	-55/125	Q	STAT EM		N.R.	5:		0:	
			Q	REVBIA	250C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM		N.R.	5:		0:	
			Q	REVBIA	270C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM		N.R.	5:		0:	
			Q	REVBIA	280C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM		N.R.	5:		0:	
			Q	REVBIA	288C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM		N.R.	5:		0:	
			Q			N.R.	5:		0:	

GATE

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER	PKG/ PART NO	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
FAIRCHILD	DIP : N	:06/76	:STGLIFE :250C				5:	3.60E 02	0:		
9S00	14 : -55/125	: Q	:STAT EM :		N.R.		5:		0:		
		: Q	:STGLIFE :270C		N.R.		5:	3.60E 02	0:		
		: Q	:STAT EM :		N.R.		5:		0:		
		: Q	:STGLIFE :300C		N.R.		5:	3.60E 02	0:		
		: Q	:STAT EM :		N.R.		5:		0:		
		: Q	:STGLIFE :320C		N.R.		5:	3.60E 02	0:		
		: Q	:STAT EM :		N.R.		5:		0:		
		: Q	:STGLIFE :345C		N.R.		5:	3.60E 02	0:		
		: Q	:STAT EM :		N.R.		5:		0:		
FAIRCHILD	DIP : N	:06/76	:REVBias :225C				5:	3.60E 02	0:		
9S00	14 : -55/125	: Q	:STAT EM :		N.R.		5:		0:		
		: Q	:REVBias :240C		N.R.		5:	3.60E 02	0:		
		: Q	:STAT EM :		N.R.		5:		0:		
		: Q	:REVBias :255C		N.R.		5:	3.60E 02	0:		
		: Q	:STAT EM :		N.R.		5:		0:		
		: Q	:REVBias :265C		N.R.		5:	3.60E 02	0:		
		: Q	:STAT EM :		N.R.		5:		0:		
		: Q	:REVBias :275C		N.R.		5:	3.60E 02	0:		
		: Q	:STAT EM :		N.R.		5:		0:		
		: Q	:REVBias :285C		N.R.		5:	3.60E 02	0:		
		: Q	:STAT EM :		N.R.		5:		0:		
T-1.	DIP : N	:06/76	:STGLIFE :250C				5:	3.60E 02	0:		
54S00	14 : -55/125	: Q	:STAT EM :		N.R.		5:		0:		
		: Q	:STGLIFE :270C		N.R.		5:	3.60E 02	0:		
		: Q	:STAT EM :		N.R.		5:		0:		
		: Q	:STGLIFE :300C		N.R.		5:	3.60E 02	0:		
		: Q	:STAT EM :		N.R.		5:		0:		
		: Q	:STGLIFE :320C		N.R.		5:	3.60E 02	0:		
		: Q	:STAT EM :		N.R.		5:		0:		
		: Q	:STGLIFE :345C		N.R.		5:	3.60E 02	0:		
		: Q	:STAT EM :		N.R.		5:		0:		
		: Q			N.R.						

GATE

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TMP RRG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY /#
T-1.		DIP : N	06/76	REVBias	225C		5:	3.60E 02	0:	
54S00	14	-55/125	Q	STAT EM		N.R.	5:		0:	
			Q	REVBias	240C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM		N.R.	5:		0:	
			Q	REVBias	255C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM		N.R.	5:		0:	
			Q	REVBias	265C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM		N.R.	5:		0:	
			Q	REVBias	275C	N.R.	5:	3.50F 02	0:	
			Q	STAT EM		N.R.	5:		0:	
			Q	REVBias	285C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM		N.R.	5:		1:MFEF 1796/1	
			Q			N.R.				

GATE

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TMP RRG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY /#
VARIOUS		FPK : N	03/76	OP CNST	100C		10:	7.20E 02	0:	
54H01	14	-55/125	G	STAT EM	025C	N.R.	10:		0:	
			G	OP CNST	125C	N.R.	10:	1.68E 03	0:	
			G	STAT EM	025C	N.R.	10:		0:	
			G	OP CNST	150C	N.R.	10:	1.44E 03	0:	
			G	STAT EM	025C	N.R.	10:		0:	
			G	OP CNST	150C	N.R.	10:	1.85E 03	0:	
			G	STAT EM	025C	N.R.	10:		0:	
			G	OP CNST	150C	N.R.	10:	3.12E 03	0:	
			G	STAT EM	025C	N.R.	10:		0:	
			G	OP CNST	150C	N.R.	10:	1.87E 03	0:	
			G	STAT EM	025C	N.R.	10:		0:	
			G			N.R.				

GATE

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LS TTL

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TEMP RNG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FIL	SUMMARY
FAIRCHILD	DIP	N	06/76	STGLIFE	250C		10:	7.20E 02	0:	
9LS00	14	-55/125	Q	STAT EM		N.R.	10:		0:	
			Q	STGLIFE	270C	N.R.	10:	7.20E 02	0:	
			Q	STAT EM		N.R.	10:		0:	
			Q	STGLIFE	300C	N.R.	10:	7.20E 2	0:	
			Q	STAT EM		N.R.	10:		0:	
			Q	STGLIFE	320C	N.R.	10:	7.20E 02	0:	
			Q	STAT EM		N.R.	10:		0:	
			Q	STGLIFE	345C	N.R.	10:	7.20E 02	0:	
			Q	STAT EM		N.R.	10:		0:	
			Q			N.R.				
FAIRCHILD	DIP	N	06/76	REVBIA	235C		10:	7.20E 02	0:	
9LS00	14	-55/125	Q	STAT EM		N.R.	10:		0:	
			Q	REVBIA	250C	N.R.	10:	7.20E 02	0:	
			Q	STAT EM		N.R.	10:		0:	
			Q	REVBIA	270C	N.R.	10:	7.20E 02	0:	
			Q	STAT EM		N.R.	10:		0:	
			Q	REVBIA	280C	N.R.	10:	7.20E 02	0:	
			Q	STAT EM		N.R.	10:		0:	
			Q	REVBIA	288C	N.R.	10:	7.20E 02	0:	
			Q	STAT EM		N.R.	10:		0:	
			Q			N.R.				
FAIRCHILD	DIP	N	06/76	OP DYN	235C		10:	7.20E 02	0:	
9LS00	14	-55/125	Q	STAT EM		N.R.	10:		0:	
			Q	OP DYN	250C	N.R.	10:	7.20E 02	0:	
			Q	STAT EM		N.R.	10:		0:	
			Q	OP DYN	270C	N.R.	10:	7.20E 02	0:	
			Q	STAT EM		N.R.	10:		0:	
			Q	OP DYN	280C	N.R.	10:	7.20E 02	0:	
			Q	STAT EM		N.R.	10:		0:	
			Q	OP DYN	288C	N.R.	10:	7.20E 02	0:	
			Q	STAT EM		N.R.	10:		0:	
			Q			N.R.				
7-1.	DIP	N	06/76	STGLIFE	250C		10:	7.20E 02	0:	
54LS00	14	-55/125	Q	STAT EM		N.R.	10:		0:	
			Q	STGLIFE	270C	N.R.	10:	7.20E 02	0:	
			Q	STAT EM		N.R.	10:		0:	
			Q	STGLIFE	300C	N.R.	10:	7.20E 02	0:	
			Q	STAT EM		N.R.	10:		0:	
			Q	STGLIFE	320C	N.R.	10:	7.20E 02	0:	
			Q	STAT EM		N.R.	10:		0:	
			Q	STGLIFE	345C	N.R.	10:	7.20E 02	0:	
			Q	STAT EM		N.R.	10:		0:	
			Q			N.R.				

GATE

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LS TTL

MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RNC	TEST SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
T.I.	54LS00	DIP 14	X -55/125	06/76	REVBIAS	235C		10:	7.20E 02	0:		
				Q	STAT EM		N.R.	10:		0:		
				Q	REVBIAS	250C	N.R.	10:	7.20E 02	0:		
				Q	STAT EM		N.R.	10:		0:		
				Q	REVBIAS	270C	N.R.	10:	7.20E 02	0:		
				Q	STAT EM		N.R.	10:		0:		
				Q	REVBIAS	280C	N.R.	10:	7.20E 02	0:		
				Q	STAT EM		N.R.	10:		0:		
				Q	REVBIAS	288C	N.R.	10:	7.20E 02	0:		
				Q	STAT EM		N.R.	10:		0:		
				Q			N.R.					
T.I.	54LS00	DIP 14	X -55/125	06/76	OP DYS	235C		10:	7.20E 02	0:		
				Q	STAT EM		N.R.	10:		0:		
				Q	OP DYS	250C	N.R.	10:	7.20E 02	0:		
				Q	STAT EM		N.R.	10:		0:		
				Q	OP DYS	270C	N.R.	10:	7.20E 02	0:		
				Q	STAT EM		N.R.	10:		0:		
				Q	OP DYS	280C	N.R.	10:	7.20E 02	0:		
				Q	STAT EM		N.R.	10:		0:		
				Q	OP DYS	288C	N.R.	10:	7.20E 02	0:		
				Q	STAT EM		N.R.	10:		0:		
				Q			N.R.					

GATE

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RNC	TEST SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
ITT	5410	FPF 14	C-1 -55/125	08/75	ACC RB	200C		20:	3.20E 02	0:		
				Q	ACC RB	225C	N.R.	20:	3.20E 02	0:		
				Q	ACC RB	250C	N.R.	20:	3.20E 02	0:		
				Q	ACC RB	260C	N.R.	20:	3.20E 02	0:		
				Q	ACC RB	270C	N.R.	20:	3.20E 02	0:		
				Q	ACC RB	300C	N.R.	20:	3.20E 02	1:MEF 1797/1		
ITT	7400	E-DIP 14	X 0/70C	05/77	PAR EXC	005C	MS-853X	50:	5.00E 04	0:		
				Q	S&F FM	025C 125C	1005 D	50:		0:		
				Q	PAR EXC	-055C	MS-883	50:	5.00E 04	0:		
				Q	S&F E*	025C 125C	1005 D	50:		0:		
				Q		-055C	MS-883	50:		0:		

GATF

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR			OPERATIONAL TYPE TTL							
MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
ITT 7400	F-DIP 14	X 0/70C	05/77	TEMPCYC	-055C 125C	MS-883	50:		0:	
				Q	2000CY	1010 B				
				S&F EM	025C 125C	MS-883	50:		0:	
				Q	-055C	N.R.				
				TEMPCYC	-065C 150C	MS-883	50:		0:	
				Q	2000CY	1010 C				
				S&F EM	025C 125C	MS-883	50:		0:	
				Q	-055C	N.R.				
				TEMPCYC	-065C 200C	MS-883	50:		0:	
				Q	2000CY	1010 D				
ITT 7400	E-DIP 14	Y 0/70C	05/77	VBVRFQ	20HZ 2KHZ	MS-883	25:		0:	
				Q	20C	2007 A				
				S&F EM	025C 125C	MS-883	25:		0:	
				Q	-055C	N.R.				
				VBVRFQ	20HZ 2KHZ	MS-883	25:		0:	
				Q	50G	2007 B				
				S&F EM	025C 125C	MS-883	25:		0:	
				Q	-055C	N.R.				
				VBVRFQ	20HZ 2KHZ	MS-883	25:		0:	
				Q	70G	2007 C				
ITT 7400	E-DIP 14	X 0/70C	05/77	PAR FXC	125C	MS-883	50:	5.00E 04	0:	
				Q		1005 D				
				S&F EM	025C 125C	MS-883	50:		1:MFEF 1798/1	
				Q	-055C	N.R.				
				PAR FXC	150C	MS-883X	49:	4.90E 04	0:	
				Q		1005 D				
				S&F EM	025C 125C	MS-883	49:		0:	
				Q	-055C	N.R.				
				PAR EXC	175C	MS-883X	49:	4.90E 04	0:	
				Q		1005 D				
NATIONAL 5400	E-DIP 14	X -55/125	05/77	PAR EXC	005C	MS-883X	50:	5.00E 04	0:	
				Q		1005 D				
				S&F EM	025C 125C	MS-883	50:		0:	
				Q	-055C	N.R.				
				PAR EXC	-055C	MS-883X	50:	5.00E 04	0:	
				Q		1005 D				
				S&F EM	025C 125C	MS-883	50:		0:	
				Q	-055C	N.R.				
				PAR EXC	200C	MS-883X	47:	4.70E 04	0:	
				Q		1005 D				
NATIONAL 5400	F-DIP 14	X -55/125	05/77	TEMPCYC	-055C 125C	MS-883	50:		0:	
				Q	2000CY	1010 B				
				S&F EM	025C 125C	MS-883	50:		1:MFEF 1802/1	
				Q	-055C	N.R.				
				TEMPCYC	-065C 150C	MS-883	49:		0:	
				Q	2000CY	1010 C				
				S&F EM	025C 125C	MS-883	49:		3:MFEF 1803/3	
				Q	-055C	N.R.				
				TEMPCYC	-065C 200C	MS-883	46:		0:	
				Q	2000CY	1010 D				
NATIONAL 5400	F-DIP 14	X -55/125	05/77	S&F EM	025C 125C	MS-883	46:		25:MFEF 1804/25	
				Q	-055C	N.R.				
				VBVRFQ	20HZ 2KHZ	MS-883	25:		0:	
				Q	20G	2007 A				
				S&F EM	025C 125C	MS-883	25:		0:	
				Q	-055C	N.R.				
				VBVRFQ	20HZ 2KHZ	MS-883	25:		0:	
				Q	50G	2007 B				
				S&F EM	025C 125C	MS-883	25:		0:	
				Q	-055C	N.R.				
NATIONAL 5400	F-DIP 14	X -55/125	05/77	VBVRFQ	20HZ 2KHZ	MS-883	25:		0:	
				Q	70G	2007 C				
				S&F EM	025C 125C	MS-883	25:		0:	
				Q	-055C	N.R.				

GATE

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE TTL							
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RRG	TEST SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL 5400	E-DIP 14	X -55/125	05/77	Q	PAR EXC	125C	MS-883	50:	5.00E 04	0:	
							1005 D				
					S&F EM	025C 125C	MS-883	50:		0:	
						-055C	N.R.				
					PAR EXC	150C	MS-883X	50:	5.00E 04	0:	
							1005 D				
					S&F EM	025C 125C	MS-883	50:		0:	
						-055C	N.R.				
					PAR EXC	175C	MS-883X	50:	5.00E 04	0:	
							1005 D				
					S&F FM	025C 125C	MS-883	50:		1:MFEF 1805/1	
						-055C	N.R.				
					PAR EXC	200C	MS-883X	49:	4.90E 04	0:	
							1005 D				
					S&F EM	025C 125C	MS-883	49:		49:MFLF 1806/49	
						-055C	N.R.				
NATIONAL 5410	FPK C-1 14	-55/125	08/75	Q	ACC RB	200C		20:	3.20E 02	0:	
							N.R.				
					ACC RB	225C		20:	3.20E 02	0:	
							N.R.				
					ACC RB	250C		20:	3.20E 02	0:	
							N.R.				
					ACC RB	260C		20:	3.20E 02	0:	
							N.R.				
					ACC RB	270C		20:	3.20E 02	0:	
							N.R.				
SIGNETICS 5400	E-DIP 14	X -55/125	05/77	Q	PAR EXC	005C	MS-883X	50:	5.00E 04	0:	
							1005 D				
					S&F FM	025C 125C	MS-883	50:		0:	
						-055C	N.R.				
					PAR EXC	-055C	MS-883X	50:	5.00E 04	0:	
							1005 D				
					S&F EM	025C 125C	MS-883	50:		0:	
						-055C	N.P.				
SIGNETICS 5400	E-DIP 14	X -55/125	05/77	Q	PAR EXC	125C	MS-883	50:	5.00E 04	0:	
							1005 D				
					S&F EM	025C 125C	MS-883	50:		0:	
						-055C	N.R.				
					PAR EXC	150C	MS-883X	50:	5.00E 04	0:	
							1005 D				
					S&F EM	025C 125C	MS-883	50:		1:MFEF 1807/1	
						-055C	N.R.				
					PAR EXC	175C	MS-883X	49:	4.90E 04	0:	
							1005 D				
					S&F EM	025C 125C	MS-883	49:		1:MFEF 1808/1	
						-055C	N.R.				
					PAR EXC	200C	MS-883X	49:	4.80E 04	0:	
							1005 D				
SIGNETICS 5400	E-DIP 14	X -55/125	05/77	Q	S&F EM	025C 125C	MS-883	48:		48:MFLF 1809/48	
						-055C	N.R.				
					TEMPCYC	-055C 125C	MS-883	50:		0:	
						2000CY	101 C				
					S&F EM	025C 125C	MS-883	50:		0:	
						-055C	N.R.				
					TEMPCYC	-065C 150C	MS-883	50:		0:	
						2000CY	1010 C				
					S&F FM	025C 125C	MS-883	50:		0:	
SIGNETICS 5400	E-DIP 14	X -55/125	05/77	Q	TEMPCYC	-065C 200C	MS-883	50:		0:	
							1010 D				
					S&F EM	025C 125C	MS-883	50:		12:MFEF 1810/11, 1811/1	
						-055C	N.R.				
					VBVRFQ	20HZ 2KHZ	MS-883	25:		0:	
						20G	2007 A				
					S&F EM	025C 125C	MS-883	25:		0:	
						-055C	N.R.				
SIGNETICS 5400	E-DIP 14	X -55/125	05/77	Q	VBVRFQ	20HZ 2KHZ	MS-883	25:		0:	
						50G	2007 B				
					S&F FM	025C 125C	MS-883	25:		0:	
						-055C	N.R.				
					VBVRFQ	20HZ 2KHZ	MS-883	25:		0:	
						70G	2007 C				
					S&F EM	025C 125C	MS-883	25:		0:	
						-055C	N.P.				

GATE

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LFVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I. 7400	E-DIP 14	X 0/70C	05/77	PAR EXC	005C	MS-883A	50:	5.00E 04	0:	
			Q	S&F EM	025C 125C	1005 D	50:		0:	
			Q		-055C	N.R.	50:		0:	
			Q	PAR EXC	-055C	MS-883X	50:	5.00E 04	0:	
			Q	S&F FM	025C 125C	1005 D	50:		0:	
			Q		-055C	N.R.	50:		0:	
T.I. 7400	F-DIP 14	Y 0/70C	05/77	PAR EXC	125C	MS-883	50:	5.00E 04	0:	
			Q	S&F EM	025C 125C	1005 D	50:		0:	
			Q		-055C	N.R.	50:		0:	
			Q	PAR EXC	150C	MS-883X	50:	5.00E 04	0:	
			Q	S&F EM	025C 125C	1005 D	50:		1:	
			Q		-055C	N.R.	49:	4.90E 04	0:	
			Q	PAR EXC	175C	MS-883X	49:		0:	
			Q	S&F EM	025C 125C	1005 D	49:		39:MFEF 1812/39	
			Q		-055C	N.R.				
T.I. 7400	E-DIP 14	X 0/70C	05/77	TEMPCYC	-055C 125C	MS-883	50:		0:	
			Q		2000CY	1010 P	50:		0:	
			Q	S&F EM	025C 125C	MS-883	50:		0:	
			Q		-055C	N.R.	50:		0:	
			Q	TEMPCYC	-065C 150C	MS-883	50:		0:	
			Q		2000CY	1010 C	50:		0:	
			Q	S&F LM	025C 125C	MS-883	50:		0:	
			Q		-055C	N.R.	50:		0:	
			Q	TEMPCYC	-065C 200C	MS-883	50:		0:	
			Q		2000CY	1010 D	50:		1 MFEF 1813/1	
			Q	S&F EM	025C 125C	MS-883	50:		0:	
			Q		-055C	N.R.				
T.I. 7400	E-DIP 14	X 0/70C	05/77	VBVRFQ	20HZ 2KHZ	MS-883	25:		0:	
			Q		20C	2007 A	25:		0:	
			Q	S&F EM	025C 125C	MS-883	25:		0:	
			Q		-055C	N.R.	25:		0:	
			Q	VBVRFQ	20HZ 2KHZ	MS-883	25:		0:	
			Q		50C	2007 B	25:		0:	
			Q	S&F EM	025C 125C	MS-883	25:		0:	
			Q		-055C	N.R.	25:		0:	
			Q	VBVRFQ	20HZ 2KHZ	MS-883	25:		0:	
			Q		70C	2007 C	25:		0:	
			Q	S&F EM	025C 125C	MS-883	25:		0:	
			Q		-055C	N.R.				

GATE

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE ECL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RRG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD 95101	DIP 16	N 0/70C	03/76	BAKE	250C	N.R.	20:	1.44E 03	0:	
			Q	STAT EM		N.R.	20:		0:	
			Q	BAKE	275C	N.R.	20:	1.44E 03	0:	
			Q	STAT EM		N.R.	20:		0:	
			Q	BAKE	300C	N.R.	20:	1.44E 03	0:	
			Q	STAT EM		N.R.	20:		0:	
			Q	BAKE	325C	N.R.	20:	1.44E 03	0:	
			Q	STAT EM		N.R.	20:		0:	
			Q	BAKE	340C	N.R.	20:	1.44E 03	0:	
			Q	STAT EM		N.R.	20:		0:	
			Q			N.R.				

GATE

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR				OPERATIONAL TYPE ECL							
MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RNG	TEST SRC	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
FAIRCHILD 95101	DIP 16	N 0/70C	03/76	BAKE	215C		9	6.48E 02	0		
				Q	IL 25MA FO 4	N.R.	9		0		
				STAT EM		N.R.	9		0		
				Q	BAKE	225C	9	6.48E 02	0		
				Q	IL 25MA FO 4	N.R.	9		0		
				STAT EM		N.R.	9		0		
				Q	BAKE	250C	9	6.48E 02	0		
				Q	IL 25MA FO 4	N.R.	9		0		
				STAT EM		N.R.	9		0		
				Q	BAKE	275C	9	6.48E 02	0		
				Q	IL 25MA FO 4	N.R.	9		0		
				STAT EM		N.R.	9		0		
				Q	BAKE	290C	9	6.48E 02	0		
				Q	IL 25MA FO 4	N.R.	9		0		
				STAT EM		N.R.	9		0		
				Q		N.R.					
FAIRCHILD 95101	DIP 16	N 0/70C	03/76	BAKE	215C		5	3.60E 02	0		
				Q	IL 44MA FO 3	N.R.	5		0		
				STAT EM		N.R.	5		0		
				Q	BAKE	225C	5	3.60E 02	0		
				Q	IL 44MA FO 3	N.R.	5		0		
				STAT EM		N.R.	5		0		
				Q	BAKE	250C	5	3.60E 02	0		
				Q	IL 44MA FO 3	N.R.	5		0		
				STAT EM		N.R.	5		0		
				Q	BAKE	275C	5	3.60E 02	0		
				Q	IL 44MA FO 3	N.R.	5		0		
				STAT EM		N.R.	5		0		
				Q	BAKE	290C	5	3.60E 02	0		
				Q	IL 44MA FO 3	N.R.	5		0		
				STAT EM		N.R.	5		0		
				Q		N.R.				3:MFEF 1814/3	
FAIRCHILD 95101	DIP 16	N 0/70C	03/76	BAKE	215C		5	3.60E 02	0		
				Q	IL 44MA FO 2	N.R.	5		0		
				STAT EM		N.R.	5		0		
				Q	BAKE	225C	5	3.60E 02	0		
				Q	IL 65MA FO 2	N.R.	5		0		
				STAT EM		N.R.	5		0		
				Q	BAKE	250C	5	3.60E 02	0		
				Q	IL 65MA FO 2	N.R.	5		0		
				STAT EM		N.R.	5		0		
				Q	BAKE	275C	5	3.60E 02	0		
				Q	IL 65MA FO 2	N.R.	5		0		
				STAT EM		N.R.	5		0		
				Q	BAKE	290C	4	2.88E 02	0		
				Q	IL 65MA FO 2	N.R.	4		0		
				STAT EM		N.R.	4		0		
				Q		N.R.				4:MFEF 1816/4	
MOTOROLA 10501	DIP 16	N -55/125	03/76	BAKE	300C		10	7.20E 02	0		
				Q	STAT EM	N.P.	10		0		
				Q	BAKE	310C	10	7.20E 02	0		
				Q	STAT EM	N.P.	10		0		
				Q	STAT EM	N.R.	10		0		
				Q	STGLIFF	325C	10	2.87E 03	0		
				Q	STAT EM	N.R.	10		0		
				Q	BAKE	340C	10	2.70E 02	0		
				Q	STAT EM	N.R.	10		0		
				Q		N.R.					
				Q		N.R.					
				Q		N.R.					
				Q		N.R.					
				Q		N.R.					
				Q		N.R.					

GATF

STFP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE ECL

MANUFACTURER	PFG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TEMP RRG	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY
MOTOROLA	DIP	N	03/76	BAKL	230C		5:	3.60E 02	0:	
10501	16	-55/125	Q	STAT EM	IL 70 MA	N.R.	5:		0:	
			Q	BAKE	240C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM	IL 70 MA	N.R.	5:		5:MFEF 1817/5	
			Q			N.R.				
MOTOROLA	DIP	N	03/76	BAKF	300C		10:	7.20E 02	0:	
10506	16	-55/125	Q	STAT EM		N.R.	10:		0:	
			Q	BAKE	310C	N.R.	10:	7.20E 02	0:	
			Q	STAT EM		N.R.	10:		0:	
			Q	STCLIFE	325C	N.R.	10:	2.87E 03	0:	
			Q	STAT EM		N.R.	10:		0:	
			Q	BAKE	340C	N.R.	10:	7.20E 02	0:	
			Q	STAT EM		N.R.	10:		0:	
			Q			N.R.				
MOTOROLA	DIP	N	03/76	BAFE	230C		5:	3.60E 02	0:	
10506	16	-55/125	Q	STAT EM	IL 70 MA	N.R.	5:		0:	
			Q	BAKE	240C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM	IL 70 MA	N.R.	5:		0:	
			Q	BAKE	250C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM	IL 70 MA	N.R.	5:		0:	
			Q	BAKE	260C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM	IL 70 MA	N.R.	5:		0:	
			Q	BAKE	270C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM	IL 70 MA	N.R.	5:		0:	
			Q	BAKL	280C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM	IL 70 MA	N.R.	5:		0:	
			Q	BAKE	290C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM	IL 70 MA	N.R.	5:		0:	
			Q			N.R.				
MOTOROLA	DIP	N	03/76	BAKE	230C		5:	3.60E 02	0:	
10506	16	-55/125	Q	STAT EM	IL 50 MA	N.R.	5:		0:	
			Q	BAKE	240C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM	IL 50 MA	N.R.	5:		0:	
			Q	BAKE	250C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM	IL 50 MA	N.R.	5:		0:	
			Q	BAKF	260C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM	IL 50 MA	N.R.	5:		0:	
			Q	BAKE	270C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM	IL 50 MA	N.R.	5:		0:	
			Q	BAKE	280C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM	IL 50 MA	N.R.	5:		0:	
			Q	BAKE	290C	N.R.	5:	3.60E 02	0:	
			Q	STAT EM	IL 50 MA	N.R.	5:		0:	
			Q			N.R.				

GATE

STEP STRFSS TFST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE ECL

MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RNG	SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
MOTOROLA	1662	DIP 16	N -40/80C	03/76	BAKE	250C		20:	1.44E 03	0:	
				Q	STAT FM		N.R.	20:		0:	
				Q	BAKE	275C	N.R.	20:	1.44E 03	0:	
				Q	STAT FM		N.R.	20:		0:	
				Q	BAKE	300C	N.R.	20:	1.44E 03	0:	
				Q	STAT EM		N.R.	20:		0:	
				Q	BAKE	325C	N.R.	20:	1.44E 03	0:	
				Q	STAT EM		N.R.	20:		0:	
				Q	BAKF	340C	N.R.	20:	1.44E 03	0:	
				Q	STAT EM		N.R.	20:		0:	
				Q			N.R.				
MOTOROLA	1662	DIP 16	N -40/80C	03/76	BAKE	215C		8:	5.76E 02	0:	
				Q	STAT EM	IL 25MA FO 4	N.R.	8:		0:	
				Q	BAKF	225C	N.R.	8:	5.76E 02	0:	
				Q	STAT EM	IL 25MA FO 4	N.R.	8:		0:	
				Q	BAKE	250C	N.R.	8:	5.76E 02	0:	
				Q	STAT EM	IL 25MA FO 4	N.R.	8:		0:	
				Q	BAKE	275C	N.R.	8:	5.76E 02	0:	
				Q	STAT EM	IL 25MA FO 4	N.R.	8:		0:	
				Q	BAKE	290C	N.R.	8:	5.76E 02	0:	
				Q	STAT EM	IL 25MA FO 4	N.R.	8:		0:	
				Q			N.R.				
MOTOROLA	1662	DIP 16	N -40/80C	03/76	BAKE	215C		7:	5.04E 02	0:	
				Q	STAT EM	IL 50MA FO 3	N.R.	7:		0:	
				Q	BAKE	225C	N.R.	7:	5.04E 02	0:	
				Q	STAT EM	IL 50MA FO 3	N.R.	7:		0:	
				Q	BAKE	250C	N.R.	7:	5.04E 02	0:	
				Q	STAT EM	IL 50MA FO 3	N.R.	7:	5.04E 02	0:	
				Q	BAKF	275C	N.R.	7:	5.04E 02	0:	
				Q	STAT EM	IL 50MA FO 3	N.R.	7:		0:	
				Q	BAKF	290C	N.R.	7:	5.04E 02	0:	
				Q	STAT EM	IL 50MA FO 3	N.R.	7:		0:	
				Q			N.R.				
MOTOROLA	1662	DIP 16	N -40/80C	03/76	BAKE	215C		5:	3.60E 02	0:	
				Q	STAT EM	IL 70MA FO 2	N.R.	5:		0:	
				Q	BAKE	225C	N.R.	5:	3.60E 02	0:	
				Q	STAT EM	IL 70MA FO 2	N.R.	5:		0:	
				Q	BAKE	250C	N.R.	5:	3.60E 02	0:	
				Q	STAT EM	IL 70MA FO 2	N.R.	5:		0:	
				Q	BAKF	275C	N.R.	5:	3.60E 02	9:	
				Q	STAT FM		N.R.	5:		0:	
				Q	BAKF	290C	N.R.	5:	3.60E 02	0:	
				Q	STAT EM	IL 70MA FO 2	N.R.	5:			3:MEF 1818/1,
				Q			N.R.				1819/2

GATE

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS

MANUFACTURER	PKG/ PART NO	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
HARRIS	4002A	DIP : N 14 : -55/125	03/76	STAT EM	:025C	N.R.	15:		0:		
			G	OP CNST	:100C	N.R.	15:	1.44E 03	0:		
			G	STAT EM	:025C	N.R.	15:		0:		
			C	OP CNST	:100C	N.R.	15:	1.08E 03	0:		
			C	STAT EM	:025C	N.R.	15:		0:		
			G	OP CNST	:125C	N.R.	15:	1.08E 03	0:		
			C	STAT EM	:025C	N.R.	15:		0:		
			G	OP CNST	:125C	N.R.	15:	1.44E 03	0:		
			C	STAT EM	:025C	N.R.	15:		0:		
			G	OP CNST	:150C	N.R.	15:	1.32E 03	0:		
			C	STAT FM	:025C	N.R.	15:		0:		
			G	OP CNST	:150C	N.R.	15:	1.32E 03	0:		
			G	STAT EM	:025C	N.R.	15:		1:MFEF 697/1		
			G			N.R.					
HARRIS	4002A	DIP : N 14 : -55/125	03/76	OP CNST	:100C	N.R.	14:	7.84E 02	0:		
			G	STAT FM	:025C	N.R.	14:		0:		
			G	OP CNST	:100C	N.R.	14:	1.46E 03	0:		
			C	STAT EM	:025C	N.R.	14:		0:		
			G	OP CNST	:125C	N.R.	14:	2.35E 03	0:		
			C	STAT EM	:025C	N.R.	14:		0:		
			G	OP CNST	:125C	N.R.	14:	2.35E 03	0:		
			C	STAT EM	:025C	N.R.	14:		0:		
			G	OP CNST	:150C	N.R.	14:	2.59E 03	0:		
			G	STAT EM	:025C	N.R.	14:		0:		
			G	OP CNST	:150C	N.R.	14:	2.60E 03	0:		
			C	STAT EM	:025C	N.R.	14:		0:		
			G	OP CNST	:150C	N.R.	14:	2.34E 03	0:		
			C	STAT EM	:025C	N.R.	14:		0:		
			G			N.R.					
MOTOROLA	14002	DIP : N 14 : -40/80C	03/76	STAT EM	:025C	N.R.	5:		0:		
			G	OP CNST	:100C	N.R.	5:	5.65E 02	0:		
			G	STAT EM	:025C	N.R.	5:		0:		
			G	OP CNST	:125C	N.R.	5:	9.50E 02	0:		
			C	STAT EM	:025C	N.R.	5:		0:		
			G	OP CNST	:150C	N.R.	5:	4.65E 02	0:		
			C	STAT EM	:025C	N.R.	5:		0:		
			G	OP CNST	:175C	N.R.	5:	3.12E 03	0:		
			C	STAT EM	:025C	N.R.	5:		0:		
			G			N.R.					

GATE

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS

MANUFACTURER	PKG/ PART NO	SCR CL/ PINS	DATE/ TMP RSG	TEST SRC	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE BLOCKS	NO. FLOD	FAILURE SUMMARY
RCA	4002A	DIP 14	N -55/125	03/76	STAT EM 0250	N.R.	5:		0:	
				G	BAKF 1250	N.R.	5:	3.60E 02	0:	
				G	STAT EM 0250	N.R.	5:		0:	
				G	PAFF 2000	N.R.	5:	2.40E 02	0:	
				G	STAT EM 0250	N.R.	5:		0:	
				G	BAVF 2000	N.R.	5:	2.40E 02	0:	
				G	STAT EM 0250	N.R.	5:		11MFF 699/1	
				C		N.R.				
RCA	4002A	DIP 14	N -55/125	03/76	STAT EM 0250	N.R.	15:		0:	
				G	REVBAS 1000	N.R.	15:	7.20E 02	0:	15MFF 699/1
				C	REVBAS 1000	N.R.	15:	6.20E 02	0:	15MFF 699/1
				C	REVBAS 1250	N.R.	13:	8.20E 02	0:	15MFF 699/1
				G	REVBAS 1250	N.R.	12:	7.80E 02	0:	15MFF 699/1
				C	REVBAS 1500	N.R.	11:	9.80E 03	0:	
				G	REVBAS 1750	N.R.	11:	4.80E 02	0:	15MFF 700/1
				C	REVBAS 2000	N.R.	10:	7.20E 02	0:	
				G	REVBAS 2250	N.R.	10:	2.40E 02	0:	15MFF 699/1
				G	REVBAS 2250	N.R.	9:	2.10E 02	0:	25MFF 699/1
				G		N.R.				
RCA	4002A	DIP 14	N -55/125	03/76	STAT EM 0250	N.R.	10:		0:	
				G	OP CNST 1000	N.R.	10:	7.20E 02	0:	
				G	STAT EM 0250	N.R.	10:		0:	
				G	OP CNST 1250	N.R.	10:	1.85E 03	0:	
				G	STAT EM 0250	N.R.	10:		0:	
				G	OP CNST 1500	N.R.	10:	1.44E 03	0:	
				G	STAT EM 0250	N.R.	10:		0:	
				C	OP CNST 1500	N.R.	10:	1.85E 03	0:	
				G	STAT EM 0250	N.R.	10:		0:	
				G	OP CNST 1500	N.R.	10:	2.42E 03	0:	
				C	STAT EM 0250	N.R.	10:		0:	
				G	OP CNST 1500	N.R.	10:	2.50E 03	0:	
				C	STAT EM 0250	N.R.	10:		0:	
RCA	4002A	S-DIP 14	N -0/100	03/76	STAT EM 0250	N.R.	10:		0:	
				G	BAKF 1250	N.R.	10:	7.20E 02	0:	
				G	STAT EM 0250	N.R.	10:		0:	
				G	BAVF 1500	N.R.	10:	7.20E 02	0:	
				C	STAT EM 0250	N.R.	10:		0:	
				G	BAKF 2000	N.R.	10:	9.80E 03	0:	
				G	STAT EM 0250	N.R.	10:		0:	

GATE

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SPEC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
SOLID STATE SC 4002A	DIP : N 14	-55/125	03/76	STAT EM :025C		N.R.	5:		0:		
				OP CNST :100C		N.R.	5:	5.65E 02	0:		
				STAT EM :025C		N.R.	5:		0:		
				OP CNST :125C		N.R.	5:	9.50E 02	0:		
				STAT EM :025C		N.R.	5:		0:		
				OP CNST :150C		N.R.	5:	4.65E 02	0:		
				STAT EM :025C		N.R.	5:		2:MFEF 701/2		
				OP CNST :175C		N.R.	3:	1.44E 02	0:		
				STAT EM :025C		N.R.	3:		1:MFEF 701/1		
				OP CNST :175C		N.R.	2:	9.60E 01	0:		
				STAT EM :025C		N.R.	2:		1:MFEF 701/1		
				OP CNST :175C		N.R.	1:	5.27E 02			
				STAT EM :025C		N.R.	1:		0:		
SOLID STATE DEV 4002A	DIP : N 14	-55/125	03/76	STAT EM :025C		N.R.	5:		0:		
				REVBIAS :100C		N.R.	5:	5.65E 02	0:		
				STAT EM :025C		N.R.	5:		0:		
				REVBIAS :125C		N.R.	5:	9.50E 02	0:		
				STAT EM :025C		N.R.	5:		0:		
				REVBIAS :150C		N.R.	5:	4.35E 02	0:		
				STAT EM :025C		N.R.	5:		1:MFEF 702/1		
				REVBIAS :175C		N.R.	4:	4.08E 02	0:		
				STAT EM :025C		N.R.	4:		1:MFEF 702/1		
				REVBIAS :175C		N.R.	3:	1.58E 03	0:		
				STAT EM :025C		N.R.	3:		1:MFEF 702/1		

INVERTER

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS/SOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SPEC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
INVERTER 4007	DIP : N 14	-55/125	06/76	STAT EM :025C		N.R.	21:		0:		
				STAT EM :055C		N.R.	21:		0:		
				STAT EM :125C		N.R.	21:		0:		
				OP CNST :075C		N.R.	21:	3.53E 03	0:		
				STAT EM :025C		N.R.	21:		0:		
				OP CNST :125C		N.R.	21:	3.53E 03	0:		
				STAT EM :025C		N.R.	21:		1:MFEF 1820/1		
				OP CNST :200C		N.R.	20:	3.36E 03	0:		
				STAT EM :025C		N.R.	20:		6:MFEF 1821/2, 1822/3,1823/1		

INVERTER

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS/SOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
HUGHES 4007	DIP 14	N -55/125	06/76	STAT EM	-055C 025C	N.R.	24:			2:MFEF 1824/2
			G	OP CNST	125C	N.R.	22:	3.70E 03	0:	
			G	STAT FM	025C	N.R.	22:		0:	
			G	OP CNST	125C	N.R.	22:	3.70E 03	0:	
			G	STAT EM	025C	N.R.	22:		0:	
			G	OP CNST	200C	N.R.	22:	3.70E 03	0:	
			G	STAT FM	025C	N.R.	22:		7:MFEF 1825/5, 1825/2	
HUGHES 4007	DIP 14	N -55/125	06/76	STAT EM	025C	N.R.	30:		0:	
			G	STAT EM	-055C	N.R.	30:		0:	
			G	STAT EM	125C	N.R.	30:		0:	
			G	PAR EXC	075C	N.R.	30:	5.04E 03	0:	
			G	STAT EM	025C	N.R.	30:		1:MFEF 1827/1	
			G	PAR EXC	125C	N.R.	29:	4.87E 03	0:	
			G	STAT FM	025C	N.R.	29:		0:	
			G	PAR EXC	200C	N.R.	29:	4.87E 03	0:	
			G	STAT EM	025C	N.R.	29:		14:MFEF 1828/2, 1829/12	
HUGHES 4007	DIP 14	N -55/125	06/76	STAT EM	-055C 025C	N.R.	30:		1:MFEF 1830/1	
			G	BAKE	125C	N.R.	29:	4.87E 03	0:	
			G	STAT EM	025C	N.R.	29:		2:MFEF 1831/2	
			G	BAKF	200C	N.R.	27:	4.54E 03	0:	
			G	STAT EM	025C	N.R.	27:		8:MFEF 1832/6, 1833/1, 1834/1	
			G	BAKE	300C	N.R.	21:	3.53E 03	0:	
			G	STAT EM	025C	N.R.	21:		1:MFEF 1835/1	
NRMEC 4007	DIP 14	N -55/125	06/76	STAT EM	025C	N.R.	24:		0:	
			G	STAT FM	-055C	N.R.	24:		0:	
			G	STAT EM	125C	N.R.	24:		0:	
			G	OP CNST	075C	N.R.	24:	4.03E 03	0:	
			G	STAT FM	025C	N.R.	24:		0:	
			G	OP CNST	125C	N.R.	24:	4.03E 03	0:	
			G	STAT EM	025C	N.R.	24:		0:	
			G	OP CNST	200C	N.R.	24:	4.03E 03	0:	
			G	STAT FM	025C	N.R.	24:		2:MFEF 1836/24	

INVERTER

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS/SOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
NRMEC 4007	DIP 14	N -55/125	06/76	STAT EM	025C	N.R.	21:		0:		
				G		N.R.	21:		0:		
				STAT EM	-055C	N.R.	21:		0:		
				G		N.R.	21:		0:		
				STAT EM	125C	N.R.	21:		0:		
				C		N.R.	21:		0:		
				OP CNST	075C	N.R.	21:	3.53E 03	0:		
				G		N.R.	21:		0:		
				STAT EM	025C	N.R.	21:		0:		
				G		N.R.	21:		0:		
				OP CNST	125C	N.R.	21:	3.53E 03	0:		
				G		N.R.	21:		0:		
				STAT EM	025C	N.R.	21:		0:		
				G		N.R.	21:		0:		
				OP CNST	200C	N.R.	21:	3.53E 03	0:		
				G		N.R.	21:		0:		
				STAT EM	025C	N.R.	21:		21:MFEF 1837/21		
NRMEC 4007	DIP 14	N -55/125	06/76	STAT EM	025C	N.R.	30:		0:		
				G		N.R.	30:		0:		
				STAT EM	-055C	N.R.	30:		0:		
				G		N.R.	30:		0:		
				STAT EM	125C	N.R.	30:		0:		
				G		N.R.	30:		0:		
				PAR EXC	075C	N.R.	30:	5.04E 03	0:		
				G		N.R.	30:		0:		
				STAT EM	025C	N.R.	30:		0:		
				G		N.R.	30:		0:		
				PAR EXC	125C	N.R.	30:	5.04E 03	0:		
				G		N.R.	30:		0:		
				STAT EM	025C	N.R.	30:		3:MFEF 1838/3		
				G		N.R.	27:	4.54E 03	0:		
				PAR EXC	200C	N.R.	27:		0:		
				G		N.R.	27:		21:MFEF 1839/21		
				STAT EM	025C	N.R.					
NRMEC 4007	DIP 14	N -55/125	06/76	STAT EM	025C	N.R.	30:		0:		
				G		N.R.	30:		0:		
				STAT EM	-055C	N.R.	30:		0:		
				G		N.R.	30:		0:		
				STAT EM	125C	N.R.	30:		0:		
				G		N.R.	30:		0:		
				BAKE	125C	N.R.	30:	5.04E 03	0:		
				G		N.R.	30:		0:		
				STAT EM	025C	N.R.	30:		0:		
				G		N.R.	30:		0:		
				BAKE	200C	N.R.	30:	5.04E 03	0:		
				G		N.R.	30:		0:		
				STAT EM	025C	N.R.	30:		0:		
				G		N.R.	30:		0:		
				BAKE	300C	N.R.	30:	5.04E 03	0:		
				G		N.R.	30:		0:		
				STAT EM	025C	N.R.	30:		1:MFEF 1840/1		
WESTINGHOUSE 4007	DIP 16	N -55/125	06/76	STAT EM	025C	N.R.	24:		0:		
				G		N.R.	24:		0:		
				STAT EM	-055C	N.R.	24:		0:		
				G		N.R.	24:		0:		
				STAT EM	125C	N.R.	24:		0:		
				G		N.R.	24:		0:		
				OP CNST	075C	N.R.	24:	4.03E 03	0:		
				G		N.R.	24:		0:		
				STAT EM	025C	N.R.	24:		0:		
				G		N.R.	24:		0:		
				OP CNST	125C	N.R.	24:	4.03E 03	0:		
				G		N.R.	24:		0:		
				STAT EM	025C	N.R.	24:		0:		
				G		N.R.	24:		0:		
				OP CNST	200C	N.R.	24:	4.03E 03	0:		
				G		N.R.	24:		0:		
				STAT EM	025C	N.R.	24:		10:MFEF 1841/4, 1842/4,1843/2:		
				G		N.R.					

INVERTER

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS/SOS

MANUFACTURER	PKC/ PART NO	SCR CL/ PINS	DATE/ TMP RRG	SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
WESTINGHOUSE	4007	DIP : N 16	-55/125	06/76	STAT EM : 025C G	025C	N.R.	15:		0:	
					STAT EM : -055C G	-055C	N.R.	15:		0:	
					STAT EM : 125C G	125C	N.R.	15:		0:	
					OP CNST : 125C G	125C	N.R.	15:	2.52E 03	0:	
					STAT EM : 025C G	025C	N.R.	15:		0:	
					OP CNST : 200C G	200C	N.R.	15:	2.52E 03	0:	
					STAT EM : 025C G	025C	N.R.	15:		1:MFEF 1844/1	
WESTINGHOUSE	4007	DIP : N 16	-55/125	06/76	STAT EM : 025C G	025C	N.R.	21:		0:	
					STAT EM : -055C G	-055C	N.R.	21:		0:	
					STAT EM : 125C G	125C	N.R.	21:		0:	
					OP CNST : 075C G	075C	N.R.	21:	3.53E 03	0:	
					STAT EM : 025C G	025C	N.R.	21:		0:	
					OP CNST : 125C G	125C	N.R.	21:	3.53E 03	0:	
					STAT EM : 025C G	025C	N.R.	21:		0:	
					OP CNST : 200C G	200C	N.R.	21:	3.53E 03	0:	
					STAT EM : 025C G	025C	N.R.	21:		0:	
WESTINGHOUSE	4007	DIP : N 16	-55/125	06/76	STAT EM : -055C 025C G	-055C 025C	N.R.	36:		5:MFEF 1846/2, 1850/2, 1845/1	
					PAR EXC : 075C G	075C	N.R.	31:	5.21E 03	0:	
					STAT EM : 025C G	025C	N.R.	31:		4:MFEF 1846/2, 1849/2	
					PAR EXC : 125C G	125C	N.R.	27:	4.54E 03	0:	
					STAT EM : 025C G	025C	N.R.	27:		0:	
					PAR EXC : 200C G	200C	N.R.	27:	4.54E 03	0:	
					STAT EM : 025C G	025C	N.R.	27:		9:MFEF 1847/9	
WESTINGHOUSE	4007	DIP : N 16	-55/125	06/76	STAT EM : 025C G	025C	N.R.	27:		0:	
					STAT EM : -055C G	-055C	N.R.	27:		0:	
					STAT EM : 125C G	125C	N.R.	27:		0:	
					PAR EXC : 125C G	125C	N.R.	27:	4.54E 03	0:	
					STAT EM : 025C G	025C	N.R.	27:		0:	
					PAR EXC : 200C G	200C	N.R.	27:	4.54E 03	0:	
					STAT EM : 025C G	025C	N.R.	27:		9:MFEF 1851/3, 1852/5, 1853/1	

INVERTER

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS/SGS

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TEMP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY //
WESTINGHOUSE	DIP	N	06/76	STAT EM	025C				0:	
4007	16	-55/125	G	STAT EM	-055C	N.R.	30:		0:	
			G	STAT EM	125C	N.R.	30:		0:	
			G	BAKE	125C	N.R.	30:	5.04E 03	0:	
			G	STAT EM	025C	N.R.	30:		0:	
			G	BAKE	200C	N.R.	30:	5.04E 03	0:	
			G	STAT EM	025C	N.R.	30:		1:MFEF 1854/1	
			G	BAKE	300C	N.R.	29:	4.87E 03	0:	
			G	STAT EV	025C	N.R.	27:		5:MFEF 1855/4,	
									1856/1	

INVERTER

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS

MANUFACTURER	PKG/	SCR CL/	DATE/	TEST	STRESS	SPEC.	NO.	DEVICE	NO.	FAILURE
PART NO	PINS	TEMP RNC	SRC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY //
MOTOROLA	DIP	C-1	08/75	ACC RB	200C		20:	3.20E 02		5:MFEF 1857/5,
14007	14	-55/125	Q	ACC RB	225C	N.R.	15:	2.50E 02	8:	1858/8, 1859/2:
			Q	ACC RB	250C	N.R.	7:	1.12E 02	2:	1860/1, 1861/1:
			Q	ACC RB	275C	N.R.	5:	8.00E 01	2:	
NATIONAL	E-DIP	X	05/77	REVBIA	005C	MS-883X	50:	5.00E 04	0:	
4007	14	-40/80C	Q	S&F EM	025C 125C	1005 A	50:		0:	
			Q	REVBIA	-055C	MS-883	50:		0:	
			Q	S&F EM	025C 125C	1005 A	50:		0:	
			Q	REVBIA	-055C	MS-883	50:		0:	
NATIONAL	E-DIP	X	05/77	TEMPCYC	-055C 125C	MS-883	50:		0:	
4007	14	-40/80C	Q	TEMPCYC	2000CY	1010 B				
			Q	S&F EM	025C 125C	MS-883	50:		0:	
			Q	TEMPCYC	-065C 150C	MS-883	50:		0:	
			Q	TEMPCYC	2000CY	1010 C				
			Q	S&F EM	025C 125C	MS-883	50:		9:MFEF 1862/9	
			Q	TEMPCYC	-065C 200C	MS-883	41:		0:	
			Q	TEMPCYC	2000CY	1010 D				
			Q	S&F EM	025C 125C	MS-883	41:		34:MFEF 1863/34	
			Q	REVBIA	-055C	N.R.				
NATIONAL	E-DIP	X	05/77	VBRFQ	20HZ 2KHZ	MS-883	25:		0:	
4007	14	-40/80C	Q	20G		2007 A				
			Q	S&F EM	025C 125C	MS-883	25:		0:	
			Q	REVBIA	-055C	N.R.				
			Q	VBRFQ	20HZ 2KHZ	MS-883	25:		0:	
			Q	50C		2007 B				
			Q	S&F EM	025C 125C	MS-883	25:		0:	
			Q	REVBIA	-055C	N.R.				
			Q	VBRFQ	20HZ 2KHZ	MS-883	25:		0:	
			Q	70G		2007 C				
			Q	S&F EM	025C 125C	MS-883	25:		0:	
			Q	REVBIA	-055C	N.R.				

INVERTER

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CHOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP PNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	/#
NATIONAL 4007	E-DIP : X 14	-40/80C	05/77	REVBIAS : Q	125C	MS-883 1005 A	50:	5.00E 04	0:		
				S&F EM : Q	025C 125C	MS-883 -055C	50:			4:MFEF 1864/4	
				REVBIAS : Q	150C	N.R. MS-883X	46:	4.60E 04	0:		
				S&F EM : Q	025C 125C	1005 A MS-883	46:			45:MFEF 1865/45	
				-055C : Q		N.R.					
NATIONAL 4007A	DIP : C-1 14	-55/125	07/76	ACC RB : Q	200C	N.R.	20:	3.20E 02	0:	4:MFEF 1866/4	
				ACC RB : Q	225C	N.R.	16:	2.56E 02	0:		
				ACC RB : Q	250C	N.R.	16:	2.56E 02	0:		
				ACC RB : Q	270C	N.R.	16:	2.56E 02	0:		
				-055C : Q		N.R.					
RCA 4007	DIP : C-1 14	-55/125	08/75	ACC RB : Q	200C	N.R.	20:	3.20E 02	0:		
				ACC RB : Q	225C	N.R.	20:	3.20E 02	0:	1:MFEF 1867/1	
				ACC RB : Q	250C	N.R.	19:	3.04E 02	0:		
				ACC RB : Q	275C	N.R.	19:	3.04E 02	0:	1:MFEF 1868/1	
				-055C : Q		N.R.					
RCA 4007A	E-DIP : X 14	-40/80C	05/77	REVBIAS : Q	005C	MS-883X 1005 A	50:	5.00E 04	0:		
				S&F EM : Q	025C 125C	MS-883 -055C	50:		0:		
				REVBIAS : Q	-055C	MS-883X 1005 A	50:	5.00E 04	0:		
				S&F EM : Q	025C 125C	MS-883 -055C	50:		0:		
RCA 4007A	E-DIP : Y 14	-40/80C	05/77	TEMPCTC : Q	-055C 125C	MS-883 1010 B	50:		0:		
				S&F EM : Q	025C 125C	MS-883 -055C	50:		2:MFEF 1869/1 1870/1		
				TEMPCTC : Q	-065C 150C	MS-883 1010 C	48:		0:		
				S&F EM : Q	025C 125C	MS-883 -055C	48:		0:		
				TEMPCTC : Q	-065C 200C	MS-883 1010 D	48:		0:		
				S&F EM : Q	025C 125C	MS-883 -055C	48:		10:MFEF 1871/10		
RCA 4007A	E-DIP : X 14	-40/80C	05/77	VBRFQ : Q	20HZ 2KHZ	MS-883 2007 A	25:		0:		
				S&F EM : Q	025C 125C	MS-883 -055C	25:		0:		
				VBRFQ : Q	20HZ 2KHZ	MS-883 2007 B	25:		0:		
				S&F EM : Q	025C 125C	MS-883 -055C	25:		0:		
				VBRFQ : Q	20HZ 2KHZ	MS-883 2007 C	25:		0:		
				S&F EM : Q	025C 125C	MS-883 -055C	25:		0:		
RCA 4007A	E-DIP : X 14	-40/80C	05/77	REVBIAS : Q	125C	MS-883 1005 A	50:	5.00E 04	0:		
				S&F EM : Q	025C 125C	MS-883 -055C	50:		0:		
				REVBIAS : Q	150C	MS-883X 1005 A	50:	5.00E 04	0:		
				S&F EM : Q	025C 125C	MS-883 -055C	50:		0:		
				REVBIAS : Q	175C	MS-883X 1005 A	50:	5.00E 04	0:		
				S&F EM : Q	025C 125C	MS-883 -055C	50:		10:MFEF 1872/10		

INVERTER

STEP STRESS 1.0

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS, SILICON GATE

OPERATIONAL TYPE CMOS/SOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
NRMEC 4007	DIP 14	N -55/125	06/76	STAT EM	025C	N.R.	21:		0:		
			G	STAT EM	-055C	N.R.	21:		0:		
			G	STAT EM	125C	N.R.	21:		0:		
			G	OP CNST	075C	N.R.	21:	3.53E 03	0:		
			G	STAT EM	025C	N.R.	21:		0:		
			G	OP CNST	125C	N.R.	21:	3.53E 03	0:		
			G	STAT EM	025C	N.R.	21:		0:		
			G	OP CNST	200C	N.R.	21:	3.53E 03	0:		
			G	STAT EM	025C	N.R.	21:		18:MFEF	1873/18	
NRMEC 4007	DIP 14	N -55/125	06/76	STAT EM	025C	N.R.	24:		0:		
			G	STAT EM	-055C	N.R.	24:		0:		
			G	STAT EM	125C	N.R.	24:		0:		
			G	OP CNST	075C	N.R.	24:	4.03E 03	0:		
			G	STAT EM	025C	N.R.	24:		0:		
			G	OP CNST	125C	N.R.	24:	4.03E 03	0:		
			G	STAT EM	025C	N.R.	24:		0:		
			G	OP CNST	200C	N.R.	24:	4.03E 03	0:		
			G	STAT EM	025C	N.R.	24:		24:MFEF	1874/24	
NRMEC 4007	DIP 14	N -55/125	06/76	STAT EM	025C	N.R.	30:		0:		
			G	STAT EM	-055C	N.R.	30:		0:		
			G	STAT EM	125C	N.R.	30:		0:		
			G	PAR EXC	075C	N.R.	30:	5.04E 03	0:		
			G	STAT EM	025C	N.R.	30:		0:		
			G	PAP FXC	125C	N.R.	30:	5.04E 03	0:		
			G	STAT EM	025C	N.R.	30:		0:		
			G	PAR EXC	200C	N.R.	30:	5.04E 03	0:		
			G	STAT EM	025C	N.R.	30:		21:MFLF	1875/21	
NRMEC 4007	DIP 14	N -55/125	06/76	STAT EM	025C	N.R.	30:		0:		
			G	STAT EM	-055C	N.R.	30:		0:		
			G	STAT EM	125C	N.R.	30:		0:		
			G	BAKE	125C	N.R.	30:	5.04E 03	0:		
			G	STAT EM	025C	N.R.	30:		0:		
			G	BAKE	200C	N.R.	30:	5.04E 03	0:		
			G	STAT EM	025C	N.R.	30:		0:		
			G	BAKE	300C	N.R.	30:	5.04E 03	0:		
			G	STAT EM	025C	N.R.	30:		3:MFEF	1876/3	

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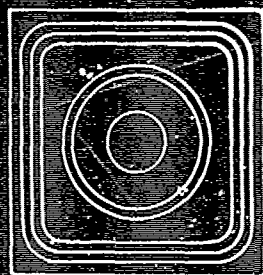
Microcircuit Device Reliability

DIGITAL EVALUATION AND FAILURE ANALYSIS DATA PART - 2

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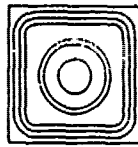
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Microcircuit Device Reliability

DIGITAL EVALUATION AND FAILURE ANALYSIS DATA PART-2

Summer 1980

Prepared by:

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IIT Research Institute

Under Contract to:

Rome Air Development Center
Griffiss AFB, NY 13441

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MICROCIRCUIT DEVICE RELIABILITY

DIGITAL EVALUATION AND
FAILURE ANALYSIS DATA

Section 3

DIGITAL FAILURE ANALYSIS DATA -
SUMMARIZED DATA

Section 3

DIGITAL FAILURE ANALYSIS DATA - SUMMARIZED DATA

The data tabulated within Section 3 represent the summation of reported digital SSI/MSI microcircuit verified failures which have occurred during various levels of device/board/equipment level testing as derived from a) the detailed environmental/screening and burn-in test data of Section 2, and b) numerous life test results, field experiences, and relevant failure analysis reports. The tables included herein have been compiled to help illustrate the relative distribution of those factors most commonly contributing to device failure in digital microcircuits. The data have been grouped according to the hierarchy of failure phenomena (failure indicator, failure mode, failure defect, failure defect cause, failure activating stress) in order to highlight the effects of operational type and package type at each level of the failure event.

The distributions of Failure Indicators are represented by Tables 34 through 52, while Failure Mode distributions may be found in Tables 53 through 69, Failure Defect Description distributions in Tables 70 through 86, Failure Defect Cause distributions in Tables 87 through 102, and Failure Activating Stress distributions in Tables 103 through 120. Operational Types are presented according to their generic (Bipolar, MOS) and specific (TTL, STTL, LTTL, CMOS, etc.) logic characteristics, while Package Types represent the same failure data categorized in terms of package enclosure (Hermetic, Nonhermetic) and package construction (dual in-line, DIP; flatpack, FPK; and CAN).

The failure representations of Tables 70 through 120 are straightforward in format, illustrating the information for each data classification in terms of the quantity failed and the percent of the overall device quantity total for that category. The Failure Indicator and Failure Mode tables (numbered 34-69) are based upon a structured format which defines the quantity totals, percent of totals, normalized quantity totals, and normalized percent contribution at each level of detail. Figure 1 (Page 4) is provided as a reference to supplement the forthcoming explanation on the derivations of the quantity totals and percent defective values.

DEVICE TECHNOLOGY: BIPOLAR

(Column 1)	(Column 2)	(Column 3)	(Column 4)	(Column 5)
FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
<p>OPEN (Level 1)</p> <p>VERIFIED OPEN (Level 2)</p> <p>UNKNOWN (Level 3)</p> <p>INPUT (Level 3)</p> <p>OUTPUT (Level 3)</p> <p>SUPPLY (Level 3)</p> <p>OTHER (Level 3)</p>		<p>25</p> <p>25</p> <p>13</p> <p>25</p> <p>13</p>	<p>8</p> <p>6</p> <p>2</p> <p>1</p> <p>2</p> <p>1</p>	<p>< 1</p> <p>100</p> <p>33</p> <p>17</p> <p>33</p> <p>17</p>
<p>SHORT (Level 1)</p> <p>VERIFIED SHORT (Level 2)</p> <p>UNKNOWN (Level 3)</p> <p>INPUT (Level 3)</p> <p>OUTPUT (Level 3)</p> <p>SUPPLY (Level 3)</p> <p>INTERMITTENT SHORT (Level 2)</p> <p>INPUT (Level 3)</p>		<p>27</p> <p>54</p> <p>15</p> <p>4</p> <p>100</p>	<p>19</p> <p>14</p> <p>4</p> <p>1</p> <p>2</p> <p>2</p>	<p>< 1</p> <p>20</p> <p>74</p> <p>21</p> <p>5</p> <p>10</p> <p>100</p>
<p>DEGRADED (Level 1)</p> <p>UNKNOWN (Level 2)</p> <p>LEAKAGE (Level 2)</p> <p>UNKNOWN (Level 3)</p> <p>INPUT (Level 3)</p> <p>OUTPUT (Level 3)</p> <p>PARAMETER OUT-OF-TOLERANCE (Level 2)</p> <p>UNKNOWN (Level 3)</p> <p>OUTPUT VOLT. (Level 3)</p> <p>INPUT VOLT. (Level 3)</p> <p>SWITCHING CHAR. (Level 3)</p> <p>SUPPLY CURRENT. (Level 3)</p> <p>PROPAGATION DELAY (Level 3)</p>		<p>18</p> <p>65</p> <p>18</p> <p>99</p> <p>< 1</p> <p>< 1</p> <p>< 1</p> <p>< 1</p> <p>< 1</p>	<p>14</p> <p>11</p> <p>3</p> <p>49</p> <p>18</p> <p>7</p> <p>19</p> <p>1</p> <p>4</p>	<p>83</p> <p>22</p> <p>79</p> <p>21</p> <p>78</p> <p>37</p> <p>14</p> <p>39</p> <p>2</p> <p>8</p>
<p>FUNCTIONAL ANOMALY (Level 1)</p> <p>UNKNOWN (Level 2)</p> <p>NON-FUNC., INOP, CATAS (Level 2)</p> <p>IMPROPER OUTPUT (Level 2)</p> <p>UNKNOWN (Level 3)</p> <p>IMPROPER LOGIC STATE (Level 3)</p> <p>IMPROPER SWITCHING (Level 3)</p> <p>FLUCTUATING/OSCILLATING (Level 3)</p> <p>CROSSTALK (Level 3)</p> <p>OUTPUT LATCHING (Level 2)</p> <p>UNKNOWN (Level 3)</p> <p>LATCHED HI (Level 3)</p> <p>LATCHED LOW (Level 3)</p>		<p>20</p> <p>95</p> <p>1</p> <p>1</p> <p>59</p> <p>5</p> <p>5</p> <p>15</p> <p>15</p> <p>7</p> <p>3</p> <p>5</p> <p>43</p> <p>52</p>	<p>19</p> <p>17</p> <p>2</p> <p>6</p> <p>6</p> <p>6</p> <p>3</p> <p>92</p> <p>42</p> <p>50</p>	<p>1</p> <p>15</p> <p>13</p> <p>12</p> <p>35</p> <p>35</p> <p>18</p> <p>72</p> <p>46</p> <p>54</p>
MECHANICAL ANOMALY (Level 1)	1785	12	1785	15

Column 1 of Figure 1 represents the verbal description of the failure indicator, as supplied by the reporting agency at up to three levels of detail. For example, OPEN is comprised of VERIFIED OPEN, which in turn breaks down into UNKNOWN, INPUT, OUTPUT, etc. Similarly, SHORT is comprised of VERIFIED SHORT and INTERMITTENT SHORT, while VERIFIED SHORT breaks down into UNKNOWN, INPUT, OUTPUT, etc. and INTERMITTENT SHORT breaks down into INPUT.

Column 2 represents the quantity totals for each level, with each Level 1 category being defined as the sum of the Level 2 quantities beneath it, and each Level 2 category being defined as the sum of the Level 3 quantities beneath it. From Figure 1, the quantity total for SHORT (Level 1) is the sum of the quantity totals for VERIFIED SHORT (Level 2) and INTERMITTENT SHORT (Level 2), whereas the quantity total for VERIFIED SHORT (Level 2) is the sum of the quantity totals for UNKNOWN, INPUT, OUTPUT, SUPPLY (all Level 3) and INTERMITTENT SHORT is the sum of the quantity totals for INPUT (Level 3).

Column 3 relates the percent contribution of each level with respect to the total quantity failed for the next higher level of structure. Calculation of the percent values at the (A) points of Figure 1 is based upon the quantity totals of each Level 1 indicator divided by the sum of the quantity totals of all of the Level 1 indicators. For example, the quantity totals for DEGRADED (9795) divided by the sum of the quantity totals for OPEN (8), SHORT (28), DEGRADED (9795), FUNCTIONAL ANOMALY (2942) and MECHANICAL ANOMALY (1785), then multiplied by 100, yields the result that 67% of all failure events reporting failure indicators were due to a degraded condition. Carrying the example further, 99% of those devices reported as degraded exhibited a PARAMETER OUT-OF-TOLERANCE condition ($9725 \div (53+17+9725)$, then multiply by 100). This type of calculation represents the percents found at the (B) points. Finally, of those devices reported as degraded due to out-of-tolerance parameters, less than 1% (<1) failed due to out-of-tolerance output voltage ($18 \div (9676+18+7+19+1+4)$, then multiply by 100). These calculations represent the point (C) values.

Column 4, the NORMALIZED QUANTITY values, require some care in interpretation. The intent of a normalized value is to eliminate unknown entities

from the calculation process, thus providing a more realistic representation of the relative distributions of the remaining known entities. For a complex hierarchy structure, however, unknowns can appear at a number of levels. For the FAILURE INDICATOR tables, an UNKNOWN can be located at Level 2 or 3, while for the FAILURE MODE tables, an UNKNOWN may appear at Level 2, 3 or 4. Returning to Figure 1, the NORMALIZED QUANTITY for each level represents the sum of the known entities on the next lowest level only. Therefore, the FUNCTIONAL ANOMALY (Level 1) normalized quantity is based on the known Level 2 entities of NON-FUNC., INOP, CATAS, IMPROPER OUTPUT, and OUTPUT LATCHING and, thus, equals the sum of the QUANTITY TOTALS (from Column 2) for each of these categories ($19+41+97=157$). The Level 2 totals are the sum of the known Level 3 quantities within that category. That is, the IMPROPER OUTPUT normalized quantity of 17 is the sum of the IMPROPER LOGIC STATE ("2" from Column 4), IMPROPER SWITCHING ("6" from Column 4), FLUCTUATING/OSCILLATING ("6" from Column 4) and CROSSTALK ("3" from Column 4) normalized quantities. Notice that, for all of the UNKNOWN category levels, no entries appear in Columns 4 and 5. The Level 1 normalized quantities are not based on the sum of the Level 2 normalized quantities due to the normalization process itself. Eliminating the UNKNOWN normalized quantities at Level 3 will affect the normalized sums indicated at Level 2, but the UNKNOWN Level 3 entity is a known entity in relation to the appropriate Level 1 normalized quantity. To clarify with an example from Figure 1, although the UNKNOWN Level 3 quantity is normalized out of the Level 2 IMPROPER OUTPUT normalized quantity totals, this Level 3 UNKNOWN must still be considered as an IMPROPER OUTPUT quantity (Level 2) when considered in summing the normalized quantity for FUNCTIONAL ANOMALY (Level 1). Similarly, the Level 3 UNKNOWN under OUTPUT LATCHING (Level 2) must still be considered as OUTPUT LATCHING in relation to the normalized quantity for FUNCTIONAL ANOMALY (Level 1).

Column 5 represents the NORMALIZED PERCENT contributions for each level of structure based upon the normalized quantity values of Column 4. The point (D) percentages represent the NORMALIZED QUANTITY of a specific Level 1 category, divided by the sum of all of the normalized quantities, then multiplied by 100. From Figure 1, the normalized quantity of 9742 for DEGRADED divided by the sum of normalized quantities for OPEN (8), SHORT (28), DEGRADED (9742),

and FUNCTIONAL ANOMALY (157) means that failures reported as degraded represent 83% of all failures where an indicator was referenced. Level 2 normalized percents (reference points (E) on Figure 1) are based on the sum of the known indicator entities of Level 3 within each category (from Column 4). For example, IMPROPER OUTPUT represents a normalized 13% of FUNCTIONAL ANOMALY failures as derived from the calculation of 17 divided by the sum of 19 plus 17 plus 92, the result of which is multiplied by 100 to convert to percent. The value of 19+17+92 represents the Level 2 normalized quantity and is not indicated within the table, i.e., the Level 1 normalized quantity may or may not be indicated as the sum of the Level 2 normalized quantities, depending on the presence of a Level 2 UNKNOWN quantity. Finally, the normalized percents of point (F) equal the selected Level 3 normalized quantity divided by the normalized quantity indicated at Level 2 of the appropriate group, multiplied by 100. Again, as an example, IMPROPER SWITCHING represents 35% of all failures reported as having defined IMPROPER OUTPUT malfunctions based on the calculation of 6 (IMPROPER SWITCHING normalized quantity) divided by 17 (IMPROPER OUTPUT normalized quantity), then multiplied by 100.

During the examination of these failure event distributions (especially the failure indicator distributions, which were heavily biased in favor of one IC user's screening program), the reader must keep in mind that these summarized results represent only those data which were reported subject to the constraints of the extent of failure analysis performed and the quantity of data supplied by each data source. In other words, where a detailed failure analysis has pinpointed a failure indicator of VERIFIED OPEN, INPUT, a less rigorous analysis may report this indicator as DEGRADED or FUNCTIONAL ANOMALY. Therefore, the relative distributions provided herein should not be strictly defined in terms of individual user expectations when comparing his results with these tables. Similarly, the presentation of failure defect description distributions (Tables 70 through 86) may be questionable in the absence of a direct reference to the appropriate failure defect cause or failure mode within the device (i.e., a cracked package seal or a cracked internal bond wire). The inclusion of these tables may be justified, however, in terms of their intuitive value for comparing process-related defects, such as masking faults or mismarked packages, with actual physics-of-failure causes (voids caused by electromigration) and activating stresses (broken wires/package due to mechanical or thermomechanical stresses).

The use of these tables, particularly the failure indicator tables, will be most beneficial to those people who perform Failure Modes and Effects Criticality Analysis (FMECA) in the evaluation of systems design. Also, the implementors of screening and environmental testing programs for microcircuits will want to take note of the relevant failure phenomena as a function of operational type and package type in order to establish the most efficient and cost effective test sequence.

TABLE 34 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: BIPOLAR

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
OPEN	<u>8</u>	<u>< 1</u>	<u>8</u>	<u>< 1</u>
VERIFIED OPEN	<u>8</u>	<u>100</u>	<u>6</u>	<u>100</u>
UNKNOWN	2	25		
INPUT	2	25	2	33
OUTPUT	1	13	1	17
SUPPLY	2	25	2	33
OTHER	1	13	1	17
SHORT	<u>26</u>	<u>< 1</u>	<u>26</u>	<u>< 1</u>
VERIFIED SHORT	<u>26</u>	<u>93</u>	<u>19</u>	<u>90</u>
UNKNOWN	7	27		
INPUT	14	54	14	74
OUTPUT	4	15	4	21
SUPPLY	1	4	1	5
INTERMITTENT SHORT	<u>2</u>	<u>7</u>	<u>2</u>	<u>10</u>
INPUT	2	100	2	100
DEGRADED	<u>9795</u>	<u>67</u>	<u>9742</u>	<u>83</u>
UNKNOWN	<u>53</u>	<u>1</u>		
LEAKAGE	<u>17</u>	<u>< 1</u>	<u>14</u>	<u>22</u>
UNKNOWN	3	18		
INPUT	11	65	11	79
OUTPUT	3	18	3	21
PARAMETER OUT-OF-TOLERANCE	<u>9725</u>	<u>99</u>	<u>49</u>	<u>78</u>
UNKNOWN	9676	99		
OUTPUT VOLT.	18	< 1	18	37
INPUT VOLT.	7	< 1	7	14
SWITCHING CHAR.	19	< 1	19	39
SUPPLY CURRENT.	1	< 1	1	2
PROPAGATION DELAY	4	< 1	4	8
FUNCTIONAL ANOMALY	<u>2942</u>	<u>20</u>	<u>157</u>	<u>1</u>
UNKNOWN	<u>2785</u>	<u>95</u>		
NON-FUNC., INOP. CATAS	<u>19</u>	<u>1</u>	<u>19</u>	<u>15</u>
IMPROPER OUTPUT	<u>41</u>	<u>1</u>	<u>17</u>	<u>13</u>
UNKNOWN	24	59		
IMPROPER LOGIC STATE	2	5	2	12
IMPROPER SWITCHING	6	15	6	35
FLUCTUATING/OSCILLATING	6	15	6	35
CROSSTALK	3	7	3	18
OUTPUT LATCHING	<u>97</u>	<u>3</u>	<u>92</u>	<u>72</u>
UNKNOWN	5	5		
LATCHED HI	42	43	42	46
LATCHED LOW	50	52	50	54
MECHANICAL ANOMALY	<u>1785</u>	<u>12</u>	<u>1785</u>	<u>15</u>

TABLE 35 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: MOS

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
SHORT	<u>44</u>	<u>7</u>	<u>44</u>	<u>10</u>
INTERMITTENT SHORT COMBINATION	<u>44</u> 44	<u>100</u> 100	<u>44</u> 44	<u>100</u> 100
DEGRADED	<u>341</u>	<u>54</u>	<u>338</u>	<u>76</u>
UNKNOWN	<u>3</u>	<u>1</u>		
LEAKAGE	<u>148</u>	<u>43</u>	<u>80</u>	<u>79</u>
UNKNOWN	68	46		
INPUT	74	50	74	93
OUTPUT	1	1	1	1
OTHER	5	3	5	6
PARAMETER OUT-OF-TOLERANCE	<u>190</u>	<u>56</u>	<u>21</u>	<u>21</u>
UNKNOWN	169	89		
OUTPUT VOLT.	20	11	20	95
GAIN CHAR.	1	1	1	5
FUNCTIONAL ANOMALY	<u>225</u>	<u>36</u>	<u>32</u>	<u>7</u>
UNKNOWN	<u>191</u>	<u>86</u>		
NON-FUNC., INOP, CATAS	<u>26</u>	<u>12</u>	<u>28</u>	<u>20</u>
IMPROPER OUTPUT	<u>1</u>	<u>< 1</u>		
UNKNOWN	1	100		
OUTPUT LATCHING	<u>3</u>	<u>1</u>	<u>3</u>	<u>10</u>
LATCHED HI	2	67	2	67
LATCHED LOW	1	33	1	33
MECHANICAL ANOMALY	<u>20</u>	<u>3</u>	<u>20</u>	<u>5</u>

TABLE 36 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: BIPOLAR (NOC)

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DEGRADED	<u>1</u>	<u>50</u>	<u>1</u>	<u>50</u>
LEAKAGE	1	100		
UNKNOWN	1	100		
FUNCTIONAL ANOMALY	<u>1</u>	<u>50</u>	<u>1</u>	<u>50</u>
IMPROPER OUTPUT	1	100	1	100
IMPROPER SWITCHING	1	100	1	100

TABLE 37 FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: TTL

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
OPEN	<u>5</u>	<u>< 1</u>	<u>5</u>	<u>< 1</u>
VERIFIED OPEN	<u>5</u>	<u>100</u>	<u>5</u>	<u>100</u>
INPUT	1	20	1	20
OUTPUT	1	20	1	20
SUPPLY	2	40	2	40
OTHER	1	20	1	20
SHORT	<u>16</u>	<u>< 1</u>	<u>16</u>	<u>< 1</u>
VERIFIED SHORT	<u>16</u>	<u>89</u>	<u>13</u>	<u>87</u>
UNKNOWN	3	19		
INPUT	6	50	8	62
OUTPUT	4	25	4	31
SUPPLY	1	6	1	8
INTERMITTENT SHORT	<u>2</u>	<u>11</u>	<u>2</u>	<u>13</u>
INPUT	2	100	2	100
DEGRADED	<u>8455</u>	<u>67</u>	<u>8433</u>	<u>81</u>
UNKNOWN	22	< 1		
LEAKAGE	<u>2</u>	<u>< 1</u>	<u>2</u>	<u>10</u>
INPUT	2	100	2	100
PARAMETER OUT-OF-TOLERANCE	<u>8431</u>	<u>100</u>	<u>19</u>	<u>90</u>
UNKNOWN	8412	100		
INPUT VOLT.	7	< 1	7	37
SWITCHING CHAR.	12	< 1	12	63
FUNCTIONAL ANOMALY	<u>2606</u>	<u>21</u>	<u>93</u>	<u>1</u>
UNKNOWN	2507	96		
NON-FUNC., INOP., CATAS	<u>2</u>	<u>< 1</u>	<u>2</u>	<u>10</u>
IMPROPER OUTPUT	<u>30</u>	<u>1</u>	<u>12</u>	<u>17</u>
UNKNOWN	18	60		
IMPROPER SWITCHING	3	10	3	25
FLUCTUATING/OSCILLATING	6	20	6	50
CROSSTALK	3	10	3	25
OUTPUT LATCHING	<u>56</u>	<u>2</u>	<u>51</u>	<u>23</u>
UNKNOWN	5	9		
LATCHED HI	22	39	22	43
LATCHED LOW	29	52	29	57
MECHANICAL ANOMALY	<u>1581</u>	<u>12</u>	<u>1581</u>	<u>16</u>

TABLE 38 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: STTL

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
SHORT	<u>3</u>	<u>< 1</u>	<u>3</u>	<u>< 1</u>
VERIFIED SHORT	<u>3</u>	<u>100</u>	<u>1</u>	<u>100</u>
UNKNOWN	2	97		
INPUT	1	33	1	100
DEGRADED	<u>589</u>	<u>78</u>	<u>573</u>	<u>91</u>
UNKNOWN	<u>16</u>	<u>3</u>		
LEAKAGE	<u>11</u>	<u>2</u>	<u>10</u>	<u>21</u>
UNKNOWN	1	9		
INPUT	8	73	8	80
OUTPUT	2	18	2	20
PARAMETER OUT-OF-TOLERANCE	<u>562</u>	<u>95</u>	<u>5</u>	<u>29</u>
UNKNOWN	558	99		
OUTPUT VOLT.	1	< 1	1	25
SWITCHING CHAN.	2	< 1	2	50
SUPPLY CURRENT	1	< 1	1	25
FUNCTIONAL ANOMALY	<u>125</u>	<u>17</u>	<u>10</u>	<u>2</u>
UNKNOWN	<u>11</u>	<u>89</u>		
NON-FUNC. INOP. STATES	<u>8</u>	<u>6</u>	<u>3</u>	<u>62</u>
IMPROPER OUTPUT	<u>1</u>	<u>1</u>		
UNKNOWN	1	100		
OUTPUT LATCHING	<u>5</u>	<u>4</u>	<u>5</u>	<u>38</u>
LATCHED HI	4	80	4	80
LATCHED LOW	1	20	1	20
MECHANICAL ANOMALY	<u>2</u>	<u>5</u>	<u>2</u>	<u>9</u>

TABLE 39 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: LSTTL

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
SHORT	<u>2</u>	<u>< 1</u>	<u>2</u>	<u>1</u>
VERIFIED SHORT	<u>2</u>	<u>100</u>	<u>1</u>	<u>100</u>
UNKNOWN	1	50		
INPUT	1	50	1	100
DEGRADED	<u>381</u>	<u>83</u>	<u>381</u>	<u>97</u>
LEAKAGE	<u>1</u>	<u>< 1</u>	<u>1</u>	<u>20</u>
OUTPUT	1	100	1	100
PARAMETER OUT-OF-TOLERANCE	<u>380</u>	<u>100</u>	<u>4</u>	<u>80</u>
UNKNOWN	376	99		
PROPAGATION DELAY	4	1	4	100
FUNCTIONAL ANOMALY	<u>67</u>	<u>15</u>	<u>2</u>	<u>1</u>
UNKNOWN	<u>65</u>	<u>97</u>		
NON-FUNC. INOP. STATES	<u>1</u>	<u>1</u>	<u>1</u>	<u>50</u>
IMPROPER OUTPUT	<u>1</u>	<u>1</u>	<u>1</u>	<u>50</u>
IMPROPER LOGIC STATE	1	100	1	100
MECHANICAL ANOMALY	<u>9</u>	<u>2</u>	<u>9</u>	<u>2</u>

TABLE 40 : FAILURE INDICATOR DISTRIBUTIONS
VICF TECHNOLOGY: LTTL

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
OPEN	<u>2</u>	<u>4</u>	<u>2</u>	<u>6</u>
VERIFIED OPEN	<u>2</u>	<u>100</u>	<u>2</u>	<u>100</u>
UNKNOWN	2	100		
SHORT	<u>4</u>	<u>8</u>	<u>4</u>	<u>12</u>
VERIFIED SHORT	<u>4</u>	<u>100</u>	<u>3</u>	<u>100</u>
UNKNOWN	1	25	3	100
INPUT	3	75		
DEGRADED	<u>18</u>	<u>36</u>	<u>15</u>	<u>44</u>
UNKNOWN	<u>3</u>	<u>17</u>	<u>15</u>	<u>44</u>
LEAKAGE	<u>1</u>	<u>6</u>	<u>1</u>	<u>20</u>
INPUT	1	100		100
PARAMETER OUT-OF-TOLERANCE	<u>14</u>	<u>73</u>	<u>4</u>	<u>80</u>
UNKNOWN	10	71	4	100
SWITCHING CHAR.	4	29		
FUNCTIONAL ANOMALY	<u>27</u>	<u>51</u>	<u>11</u>	<u>32</u>
UNKNOWN	<u>16</u>	<u>52</u>	<u>11</u>	<u>32</u>
NON-FUNC., INOP, CATAS	<u>1</u>	<u>4</u>	<u>1</u>	<u>14</u>
IMPROPER OUTPUT	<u>5</u>	<u>19</u>	<u>1</u>	<u>14</u>
UNKNOWN	4	80	1	100
IMPROPER LOGIC STATE	1	20		
OUTPUT LATCHING	<u>5</u>	<u>19</u>	<u>5</u>	<u>11</u>
LATCHED HI	2	40	2	40
LATCHED LOW	3	60	3	60
MECHANICAL ANOMALY	<u>2</u>	<u>4</u>	<u>2</u>	<u>6</u>

TABLE 41 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: HTTL

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
OPEN	<u>1</u>	<u>< 1</u>	<u>1</u>	<u>< 1</u>
VERIFIED OPEN	<u>1</u>	<u>100</u>	<u>1</u>	<u>100</u>
INPUT	1	100	1	100
SHORT	<u>1</u>	<u>< 1</u>	<u>1</u>	<u>< 1</u>
VERIFIED SHORT	<u>1</u>	<u>100</u>	<u>1</u>	<u>100</u>
INPUT	1	100	1	100
DEGRADED	<u>322</u>	<u>58</u>	<u>320</u>	<u>65</u>
UNKNOWN	<u>2</u>	<u>1</u>	<u>320</u>	<u>65</u>
PARAMETER OUT-OF-TOLERANCE	<u>320</u>	<u>99</u>	<u>320</u>	<u>99</u>
UNKNOWN	320	100		
FUNCTIONAL ANOMALY	<u>74</u>	<u>13</u>	<u>72</u>	<u>4</u>
UNKNOWN	<u>55</u>	<u>74</u>	<u>72</u>	<u>4</u>
NON-FUNC., INOP, CATAS	<u>1</u>	<u>1</u>	<u>1</u>	<u>6</u>
IMPROPER OUTPUT	<u>3</u>	<u>4</u>	<u>2</u>	<u>11</u>
UNKNOWN	1	33	2	100
IMPROPER LATCHING	2	67	2	100
OUTPUT LATCHING	<u>15</u>	<u>20</u>	<u>15</u>	<u>83</u>
LATCHED HI	7	47	7	47
LATCHED LOW	8	53	8	53
MECHANICAL ANOMALY	<u>153</u>	<u>28</u>	<u>153</u>	<u>31</u>

TABLE 42 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: ECL

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DEGRADED	<u>17</u>	<u>94</u>	<u>17</u>	<u>100</u>
PARAMETER OUT-OF-TOLERANCE OUTPUT VOLT.	<u>17</u> 17	<u>100</u> 100	<u>17</u> 17	<u>100</u> 100
FUNCTIONAL ANOMAL.	<u>1</u>	<u>6</u>		
UNKNOWN	<u>1</u>	<u>100</u>		

TABLE 43 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: DTL

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DEGRADED	<u>12</u>	<u>20</u>	<u>2</u>	<u>11</u>
UNKNOWN	<u>10</u>	<u>83</u>		
LEAKAGE	<u>1</u>	<u>8</u>		
UNKNOWN	1	100		
PARAMETER OUT-OF-TOLERANCE SWITCHING CHAR.	<u>1</u> 1	<u>8</u> 100	<u>1</u> 1	<u>100</u> 100
FUNCTIONAL ANOMALY	<u>47</u>	<u>80</u>	<u>17</u>	<u>89</u>
UNKNOWN	<u>30</u>	<u>64</u>		
NON-FUNC., INOP, CATAS	<u>1</u>	<u>2</u>	<u>1</u>	<u>6</u>
OUTPUT LATCHING LATCHED HI	<u>16</u> 7	<u>34</u> 44	<u>16</u> 7	<u>94</u> 44
LATCHED LOW	9	56	9	56

TABLE 44 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: PMOS

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DEGRADED	<u>1</u>	<u>14</u>	<u>1</u>	<u>50</u>
PARAMETER OUT-OF-TOLERANCE UNKNOWN	<u>1</u> 1	<u>100</u> 100		
FUNCTIONAL ANOMALY	<u>6</u>	<u>86</u>	<u>1</u>	<u>50</u>
UNKNOWN	<u>5</u>	<u>83</u>		
OUTPUT LATCHING LATCHED LOW	<u>1</u> 1	<u>17</u> 100	<u>1</u> 1	<u>100</u> 100

TABLE 45 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: CMOS

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DEGRADED	<u>151</u>	<u>39</u>	<u>148</u>	<u>74</u>
UNKNOWN	3	2		
LEAKAGE	<u>63</u>	<u>42</u>	<u>3</u>	<u>21</u>
UNKNOWN	60	95		
INPUT	2	3	2	67
OUTPUT	1	2	1	33
PARAMETER OUT-OF-TOLERANCE	<u>85</u>	<u>56</u>	<u>11</u>	<u>79</u>
UNKNOWN	74	87		
OUTPUT VOLT.	11	13	11	100
FUNCTIONAL ANOMALY	<u>219</u>	<u>56</u>	<u>31</u>	<u>16</u>
UNKNOWN	<u>188</u>	<u>86</u>		
NON-FUNC., INOP, CATAS	<u>21</u>	<u>13</u>	<u>28</u>	<u>93</u>
IMPROPER OUTPUT	<u>1</u>	<u>1</u>		
UNKNOWN	1	100		
OUTPUT LATCHING	<u>2</u>	<u>1</u>	<u>2</u>	<u>7</u>
LATCHED HI	2	100	2	100
MECHANICAL ANOMALY	<u>20</u>	<u>5</u>	<u>20</u>	<u>10</u>

TABLE 46 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: CMOS/SOS

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
SHORT	<u>44</u>	<u>19</u>	<u>44</u>	<u>19</u>
INTERMITTENT SHORT	<u>44</u>	<u>100</u>	<u>44</u>	<u>100</u>
COMBINATION	44	100	44	100
DEGRADED	<u>189</u>	<u>81</u>	<u>189</u>	<u>81</u>
LEAKAGE	<u>85</u>	<u>45</u>	<u>77</u>	<u>89</u>
UNKNOWN	8	9		
INPUT	72	85	72	94
OTHER	5	6	5	6
PARAMETER OUT-OF-TOLERANCE	<u>104</u>	<u>55</u>	<u>10</u>	<u>11</u>
UNKNOWN	94	90		
OUTPUT VOLT.	9	9	9	90
GAIN CHAR.	1	1	1	10

TABLE 47 : FAILURE INDICATOR DISTRIBUTIONS
PACKAGE: HERMETIC N/R

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
OPEN	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>
VERIFIED OPEN	<u>1</u>	<u>100</u>		
UNKNOWN	1	100		
SHORT	<u>3</u>	<u>7</u>	<u>3</u>	<u>7</u>
VERIFIED SHORT	<u>3</u>	<u>100</u>		
UNKNOWN	3	100		
DEGRADED	<u>2</u>	<u>4</u>	<u>2</u>	<u>4</u>
LEAKAGE	<u>1</u>	<u>50</u>	<u>1</u>	<u>50</u>
OUTPUT	1	100	1	100
PARAMETER OUT-OF-TOLERANCE	<u>1</u>	<u>50</u>	<u>1</u>	<u>50</u>
OUTPUT VOLT.	1	100	1	100
MECHANICAL ANOMALY	<u>39</u>	<u>87</u>	<u>39</u>	<u>87</u>

TABLE 48 : FAILURE INDICATOR DISTRIBUTIONS
PACKAGE: HERMETIC DIP

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
SHORT	<u>54</u>	<u>5</u>	<u>54</u>	<u>5</u>
VERIFIED SHORT	<u>9</u>	<u>17</u>	<u>8</u>	<u>15</u>
UNKNOWN	1	11		
INPUT	5	56	5	63
OUTPUT	2	22	2	25
SUPPLY	1	11	1	13
INTERMITTENT SHORT	<u>45</u>	<u>83</u>	<u>45</u>	<u>85</u>
INPUT	1	2	1	2
COMBINATION	44	98	44	98
DEGRADED	<u>719</u>	<u>67</u>	<u>716</u>	<u>72</u>
UNKNOWN	<u>3</u>	<u>< 1</u>		
LEAKAGE	<u>90</u>	<u>13</u>	<u>77</u>	<u>62</u>
UNKNOWN	13	14		
INPUT	72	80	72	94
OTHER	5	6	5	6
PARAMETER OUT-OF-TOLERANCE	<u>626</u>	<u>87</u>	<u>48</u>	<u>38</u>
UNKNOWN	578	92		
OUTPUT VOLT.	36	6	36	75
INPUT VOLT.	3	< 1	3	6
SWITCHING CHAR.	4	1	4	8
PROPAGATION DELAY	4	1	4	8
GAIN CHAR.	1	< 1	1	2
FUNCTIONAL ANOMALY	<u>121</u>	<u>11</u>	<u>45</u>	<u>5</u>
UNKNOWN	<u>26</u>	<u>63</u>		
NON-FUNC., INOP, CATAS	<u>22</u>	<u>18</u>	<u>22</u>	<u>61</u>
IMPROPER OUTPUT	<u>10</u>	<u>8</u>	<u>3</u>	<u>8</u>
UNKNOWN	7	70		
FLUCTUATING/OSCILLATING	3	30	3	100
OUTPUT LATCHING	<u>13</u>	<u>11</u>	<u>11</u>	<u>31</u>
UNKNOWN	2	15		
LATCHED HI	9	69	9	82
LATCHED LOW	2	15	2	18
MECHANICAL ANOMALY	<u>181</u>	<u>17</u>	<u>181</u>	<u>18</u>

TABLE 49 : FAILURE INDICATOR DISTRIBUTIONS
PACKAGE: HERMETIC CAN

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DEGRADED	<u>8</u>	<u>100</u>	<u>8</u>	<u>100</u>
LEAKAGE INPUT	<u>8</u> 8	<u>100</u> 100	<u>8</u> 8	<u>100</u> 100

TABLE 50 : FAILURE INDICATOR DISTRIBUTIONS
PACKAGE: HERMETIC FPK

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
OPEN	<u>8</u>	<u>11</u>	<u>8</u>	<u>13</u>
VERIFIED OPEN	<u>8</u>	<u>100</u>	<u>6</u>	<u>100</u>
UNKNOWN INPUT	2	25	2	33
OUTPUT	1	13	1	17
SUPPLY	2	25	2	33
OTHER	1	13	1	17
SHORT	<u>3</u>	<u>4</u>	<u>3</u>	<u>5</u>
VERIFIED SHORT	<u>2</u>	<u>67</u>	<u>2</u>	<u>67</u>
INPUT	1	50	1	50
OUTPUT	1	50	1	50
INTERMITTENT SHORT	<u>1</u>	<u>33</u>	<u>1</u>	<u>23</u>
INPUT	1	100	1	100
DEGRADED	<u>7</u>	<u>9</u>	<u>5</u>	<u>8</u>
UNKNOWN	2	29		
LEAKAGE UNKNOWN	2	29		
PARAMETER OUT-OF-TOLERANCE	<u>3</u>	<u>43</u>	<u>3</u>	<u>100</u>
INPUT VOLT.	1	3	1	33
SWITCHING CHAR.	2	67	2	67
FUNCTIONAL ANOMALY	<u>28</u>	<u>37</u>	<u>16</u>	<u>26</u>
UNKNOWN	<u>12</u>	<u>43</u>		
NON-FUNC., INOT, CATAS	<u>4</u>	<u>14</u>	<u>4</u>	<u>25</u>
IMPROPER OUTPUT	<u>5</u>	<u>18</u>	<u>5</u>	<u>31</u>
IMPROPER LOGIC STATE	1	20	1	20
IMPROPER SWITCHING	2	40	2	40
FLUCTUATING/OSCILLATING	2	40	2	40
OUTPUT LATCHING	<u>7</u>	<u>25</u>	<u>7</u>	<u>44</u>
LATCHED HI	6	86	6	86
LATCHED LOW	1	14	1	14
MECHANICAL ANOMALY	<u>30</u>	<u>39</u>	<u>30</u>	<u>48</u>

TABLE 51 : FAILURE INDICATOR DISTRIBUTIONS
PACKAGE: NONHERMETIC N/R

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
MECHANICAL ANOMALY	<u>2</u>	<u>100</u>	<u>2</u>	<u>100</u>

TABLE 52 : FAILURE INDICATOR DISTRIBUTIONS
PACKAGE: NONHERMETIC DIP

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
SHORT	<u>3</u>	<u>< 1</u>	<u>3</u>	<u>< 1</u>
VERIFIED SHORT	<u>3</u>	<u>100</u>	<u>1</u>	<u>100</u>
UNKNOWN	2	67		
INPUT	1	33	1	100
DEGRADED	<u>9325</u>	<u>69</u>	<u>9325</u>	<u>86</u>
LEAKAGE	<u>55</u>	<u>1</u>		
UNKNOWN	55	100		
PARAMETER OUT-OF-TOLERANCE	<u>9270</u>	<u>99</u>	<u>6</u>	<u>100</u>
UNKNOWN	9264	100		
OUTPUT VOLT.	2	< 1	2	33
INPUT VOLT.	4	< 1	4	67
FUNCTIONAL ANOMALY	<u>2636</u>	<u>20</u>	<u>19</u>	<u>< 1</u>
UNKNOWN	<u>2617</u>	<u>99</u>		
NON-FUNC., IKOP, CATAS	<u>17</u>	<u>1</u>	<u>12</u>	<u>94</u>
IMPROPER OUTPUT	<u>2</u>	<u>< 1</u>	<u>1</u>	<u>6</u>
UNKNOWN	1	50		
IMPROPER LOGIC STATE	1	50	1	100
MECHANICAL ANOMALY	<u>1512</u>	<u>11</u>	<u>1512</u>	<u>14</u>

TABLE 53 : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: BIPOLAR

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	<u>196</u>	<u>26</u>	<u>192</u>	<u>26</u>
UNKNOWN	<u>4</u>	<u>2</u>		
BULK ASPECTS	<u>24</u>	<u>12</u>	<u>19</u>	<u>19</u>
UNKNOWN	5	21		
DIFFUSION	17	71	17	89
EPITAXIAL LAYER	1	4	1	5
CRYSTAL	1	4	1	5
METALIZATION	<u>101</u>	<u>52</u>	<u>33</u>	<u>34</u>
UNKNOWN	8	67		
OXIDE STEP/CUTOUT	13	13	13	36
CONTACT WINDOW	5	5	5	15
MULTI-LAYER INTERFACE	1	1	1	3
BOND PAD	14	14	14	42
OXIDE/DIELECTRIC	<u>51</u>	<u>26</u>	<u>30</u>	<u>31</u>
UNKNOWN	21	41		
GATE OXIDE/DIELECTRIC	2	43	22	73
FIELD OXIDE/DIELECTRIC	8	16	8	27
GLASSIVATION	<u>4</u>	<u>2</u>	<u>4</u>	<u>4</u>
SURFACE	<u>12</u>	<u>6</u>	<u>12</u>	<u>12</u>
INTERCONNECTS	<u>114</u>	<u>15</u>	<u>114</u>	<u>15</u>
WIRE	<u>102</u>	<u>89</u>	<u>102</u>	<u>93</u>
WIREBOND	<u>12</u>	<u>11</u>	<u>8</u>	<u>2</u>
UNKNOWN	4	33		
WIREBOND AT DIE PAD	<u>2</u>	<u>58</u>		
UNKNOWN	7	100		
WIREBOND AT LEAD FRAME	<u>1</u>	<u>8</u>	<u>1</u>	<u>13</u>
LEAD FRAME HFEL	1	100	1	100
PACKAGE	<u>432</u>	<u>58</u>	<u>431</u>	<u>58</u>
UNKNOWN	<u>1</u>	<u>< 1</u>		
PACKAGE SEAL	<u>233</u>	<u>54</u>	<u>233</u>	<u>54</u>
PACKAGE LID	<u>4</u>	<u>1</u>	<u>4</u>	<u>1</u>
PACKAGE BODY	<u>146</u>	<u>34</u>	<u>146</u>	<u>34</u>
LEAD FRAME/EXTERNAL LEADS	<u>46</u>	<u>11</u>	<u>46</u>	<u>11</u>
DIE ATTACH BOND	<u>2</u>	<u>< 1</u>	<u>2</u>	<u>< 1</u>

TABLE 54 : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: MOS

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIF	<u>558</u>	<u>86</u>	<u>558</u>	<u>86</u>
BULK ASPECTS	<u>8</u>	<u>1</u>	<u>1</u>	<u>< 1</u>
UNKNOWN	7	88		
DIFFUSION	1	13	1	100
METALIZATION	<u>4</u>	<u>1</u>		
UNKNOWN	4	100		
OXIDE/DIELECTRIC	<u>256</u>	<u>46</u>	<u>252</u>	<u>46</u>
UNKNOWN	4	2		
GATE OXIDE/DIELECTRIC	252	98	252	100
GLASSIVATION	<u>69</u>	<u>12</u>	<u>69</u>	<u>13</u>
SURFACE	<u>221</u>	<u>40</u>	<u>221</u>	<u>41</u>
INTERCONNECTIONS	<u>70</u>	<u>11</u>	<u>70</u>	<u>11</u>
WIRP	<u>54</u>	<u>77</u>	<u>54</u>	<u>77</u>
WIREBOND	<u>16</u>	<u>23</u>	<u>16</u>	<u>23</u>
WIREBOND AT DIE PAD	<u>16</u>	<u>100</u>		
UNKNOWN	16	100		
PACKAGE	<u>19</u>	<u>3</u>	<u>19</u>	<u>3</u>
PACKAGE SEAL	<u>18</u>	<u>95</u>	<u>18</u>	<u>95</u>
LEAD FRAMP/EXTERNAL LEADS	<u>1</u>	<u>5</u>	<u>1</u>	<u>5</u>

TABLE 55 : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: RIPOLAR (NOC)

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	<u>1</u>	<u>50</u>	<u>1</u>	<u>50</u>
OXIDE/DIELECTRIC GATE OXIDE/DIELECTRIC	<u>1</u> 1	<u>100</u> 100	<u>1</u> 1	<u>100</u> 100
PACKAGE	<u>1</u>	<u>50</u>	<u>1</u>	<u>50</u>
PACKAGE SEAL	<u>1</u>	<u>100</u>	<u>1</u>	<u>100</u>

TABLE 56 : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: TTL

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	<u>103</u>	<u>22</u>	<u>100</u>	<u>21</u>
UNKNOWN	<u>3</u>	<u>3</u>		
BULK ASPECTS	<u>15</u>	<u>15</u>	<u>11</u>	<u>24</u>
UNKNOWN	4	27		
DIFFUSION	9	60	9	82
EPITAXIAL LAYER	1	7	1	9
CRYSTAL	1	7	1	9
METALIZATION	<u>45</u>	<u>44</u>	<u>8</u>	<u>18</u>
UNKNOWN	37	82		
CONTACT WINDOW	4	9	4	50
MULTI-LAYER INTERFACE	1	2	1	13
BOND PAD	3	7	3	38
OXIDE/DIELECTRIC	<u>27</u>	<u>26</u>	<u>13</u>	<u>29</u>
UNKNOWN	14	52		
GATE OXIDE/DIELECTRIC	10	37	10	77
FIELD OXIDE/DIELECTRIC	3	11	3	23
GLASSIVATION	<u>2</u>	<u>2</u>	<u>2</u>	<u>4</u>
SURFACE	<u>11</u>	<u>11</u>	<u>11</u>	<u>24</u>
INTERCONNECTS	<u>95</u>	<u>20</u>	<u>95</u>	<u>20</u>
WIRE	<u>87</u>	<u>92</u>	<u>87</u>	<u>93</u>
WIREBOND	<u>8</u>	<u>8</u>	<u>7</u>	<u>7</u>
UNKNOWN	1	13		
WIREBOND AT DIE PAD	<u>1</u>	<u>22</u>		
UNKNOWN	7	100		
PACKAGE	<u>281</u>	<u>59</u>	<u>281</u>	<u>59</u>
PACKAGE SEAL	<u>22</u>	<u>32</u>	<u>22</u>	<u>32</u>
PACKAGE LID	<u>2</u>	<u>1</u>	<u>2</u>	<u>1</u>
PACKAGE BODY	<u>145</u>	<u>52</u>	<u>145</u>	<u>52</u>
LEAD FRAME/EXTERNAL LEADS	<u>44</u>	<u>16</u>	<u>44</u>	<u>12</u>

TABLE 57 : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: STTL

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	<u>20</u>	<u>21</u>	<u>20</u>	<u>74</u>
METALIZATION	<u>16</u>	<u>80</u>	<u>8</u>	<u>80</u>
UNKNOWN	8	50		
CONTACT WINDOW	1	6	1	13
BOND PAD	7	44	7	88
OXIDE/DIELECTRIC	<u>3</u>	<u>15</u>	<u>1</u>	<u>10</u>
UNKNOWN	2	67		
FIELD OXIDE/DIELECTRIC	1	33	1	100
GLASSIVATION	<u>1</u>	<u>5</u>	<u>1</u>	<u>10</u>
INTERCONNECTS	<u>3</u>	<u>11</u>	<u>3</u>	<u>11</u>
WIRE	<u>2</u>	<u>67</u>	<u>2</u>	<u>67</u>
WIRFBOND	<u>1</u>	<u>33</u>	<u>1</u>	<u>33</u>
WIRFBOND AT LEAD FRAME LEAD FRAME HEEL	<u>1</u> 1	100 100	<u>1</u> 1	100 100
PACKAGE	<u>5</u>	<u>18</u>	<u>4</u>	<u>15</u>
UNKNOWN	1	20		
PACKAGE SEAL	<u>2</u>	<u>40</u>	<u>2</u>	<u>50</u>
LEAD FRAME/EXTERNAL LEADS	<u>1</u>	<u>20</u>	<u>1</u>	<u>25</u>
DIE ATTACH BOND	<u>1</u>	<u>20</u>	<u>1</u>	<u>25</u>

TABLE 58 : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: LSTTL

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	<u>4</u>	<u>80</u>	<u>4</u>	<u>80</u>
BULK ASPECTS DIFFUSION	<u>2</u> 2	<u>50</u> 100	<u>2</u> 2	<u>67</u> 100
METALIZATION UNKNOWN	<u>1</u> 1	<u>25</u> 100		
OXIDE/DIELECTRIC FIELD OXIDE/DIELECTRIC	<u>1</u> 1	<u>25</u> 100	<u>1</u> 1	<u>33</u> 100
PACKAGE	<u>1</u>	<u>20</u>	<u>1</u>	<u>20</u>
PACKAGE LID	1	100	1	100

TABLE 59 : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: LTTL

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIF	<u>22</u>	<u>71</u>	<u>21</u>	<u>68</u>
UNKNOWN	1	5		
BULK ASPECTS DIFFUSION	2 2	9 100	2 2	17 100
METALIZATION UNKNOWN BOND PAD	11 7 4	50 64 36	4 1	23 100
OXIDE/DIELECTRIC UNKNOWN GATE OXIDE/DIELECTRIC FIELD OXIDE/DIELECTRIC	6 2 4 2	36 25 50 25	6 4 2	50 67 33
INTERCONNECTS	<u>7</u>	<u>23</u>	<u>7</u>	<u>23</u>
WIRE	2	100	2	100
PACKAGE	<u>2</u>	<u>6</u>	<u>2</u>	<u>6</u>
PACKAGE BODY	1	50	1	50
DIE ATTACH BOND	1	50	1	50

TABLE 60 : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: HTTL

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	<u>12</u>	<u>11</u>	<u>12</u>	<u>11</u>
BULK ASPECTS UNKNOWN	1 1	6 100		
METALIZATION UNKNOWN	13 13	25 100		
OXIDE/DIELECTRIC UNKNOWN GATE OXIDE/DIELECTRIC	2 2 1	18 67 33	1 1	100 100
INTERCONNECTS	<u>2</u>	<u>3</u>	<u>2</u>	<u>3</u>
WIRE	2	100	2	100
PACKAGE	<u>136</u>	<u>87</u>	<u>136</u>	<u>87</u>
PACKAGE SEAL	136	100	136	100

TABLE 61 : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: ECL

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIF	<u>10</u>	<u>83</u>	<u>10</u>	<u>83</u>
METALIZATION OXIDE STEP/CUTOUT	<u>13</u> 13	<u>68</u> 100	<u>13</u> 13	<u>68</u> 100
OXIDE/DIELECTRIC GATE OXIDE/DIELECTRIC	<u>6</u> 6	<u>32</u> 100	<u>6</u> 6	<u>32</u> 100
PACKAGE	<u>4</u>	<u>17</u>	<u>4</u>	<u>17</u>
PACKAGE SEAL	<u>4</u>	<u>100</u>	<u>4</u>	<u>100</u>

TABLE 62 : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: DTL

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIF	<u>10</u>	<u>50</u>	<u>10</u>	<u>50</u>
BULK ASPECTS DIFFUSION	<u>4</u> 4	<u>20</u> 100	<u>4</u> 4	<u>20</u> 100
METALIZATION UNKNOWN	<u>2</u> 2	<u>20</u> 100		
OXIDE/DIELECTRIC UNKNOWN FIELD OXIDE/DIELECTRIC	<u>2</u> 1 1	<u>20</u> 50 50	<u>1</u> 1	<u>10</u> 100
CLASSIFICATION	<u>1</u>	<u>10</u>	<u>1</u>	<u>10</u>
SURFACE	<u>1</u>	<u>10</u>	<u>1</u>	<u>10</u>
INTERCONNECTS	<u>5</u>	<u>20</u>	<u>5</u>	<u>20</u>
WIRE	<u>2</u>	<u>10</u>	<u>2</u>	<u>100</u>
WIREBOND UNKNOWN	<u>1</u> 1	<u>5</u> 100		
PACKAGE	<u>2</u>	<u>10</u>	<u>2</u>	<u>10</u>
PACKAGE LID	<u>1</u>	<u>5</u>	<u>1</u>	<u>50</u>
LEAD FRAME EXTERNAL LEADS	<u>1</u>	<u>50</u>	<u>1</u>	<u>50</u>

TABLE 63 : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: PMOS

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DATA	<u>11</u>	<u>65</u>	<u>11</u>	<u>65</u>
DATA ELECTRICAL UNKNOWN	<u>1</u>	<u>100</u> 100	<u>1</u>	<u>100</u>
INTERCONNECTS	<u>1</u>	<u>5</u>	<u>1</u>	<u>20</u>
WIREBOND	<u>1</u>	<u>100</u>	<u>1</u>	<u>100</u>
WIREBOND AT THE PAD UNKNOWN	<u>1</u>	<u>100</u> 100	<u>1</u>	<u>100</u>

TABLE 64 : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: PMOS

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DATA	<u>122</u>	<u>65</u>	<u>122</u>	<u>65</u>
DATA ELECTRICAL UNKNOWN DISPERSED	<u>1</u>	<u>1</u> 100	<u>1</u>	<u>1</u> 100
METALLIZATION UNKNOWN	<u>1</u>	<u>1</u> 100	<u>1</u>	<u>1</u> 100
DATA ELECTRICAL DATA ELECTRICAL SURFACE	<u>208</u> 208	<u>65</u> 100	<u>208</u> 208	<u>65</u> 100
INTERCONNECTS	<u>11</u>	<u>14</u>	<u>11</u>	<u>14</u>
WIRE	<u>1</u>	<u>100</u>	<u>1</u>	<u>100</u>
WIREBOND	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
WIREBOND AT THE PAD UNKNOWN	<u>1</u>	<u>100</u> 100	<u>1</u>	<u>100</u>
DATA	<u>10</u>	<u>5</u>	<u>10</u>	<u>5</u>
DATA ELECTRICAL	<u>10</u>	<u>100</u>	<u>10</u>	<u>100</u>
DATA ELECTRICAL UNKNOWN	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>

TABLE 65. FAILURE MODE DISTRIBUTION
DEVICE TECHNOLOGY: CMOS 1.5μ

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	<u>222</u>	<u>90</u>	<u>222</u>	<u>90</u>
WIRE ASPECTS UNKNOWN	<u>5</u>	<u>2</u> 100		
OXIDE DIELECTRIC GATE OXIDE DIELECTRIC	<u>20</u>	<u>10</u> 100	<u>20</u>	<u>20</u> 100
GLASSIVATION	<u>60</u>	<u>31</u>	<u>60</u>	<u>31</u>
SURFACE	<u>100</u>	<u>45</u>	<u>100</u>	<u>45</u>
INTER CONNECTIONS	<u>10</u>	<u>4</u>	<u>10</u>	<u>5</u>
WIREBOND	<u>10</u>	<u>100</u>	<u>10</u>	<u>100</u>
WIREBOND AT DIE PAD UNKNOWN	<u>10</u>	<u>100</u> 100		

TABLE 66. FAILURE MODE DISTRIBUTION
PACKAGE: HERMETIC 400

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
WIRE ASPECTS WIREBONDING	<u>1</u>	<u>50</u> 100	<u>1</u>	<u>50</u> 100
METALLIZATION METALLIZATION INTERFACE	<u>1</u>	<u>50</u> 100	<u>1</u>	<u>50</u> 100
INTERCONNECTIONS	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
WIRE	<u>1</u>	<u>100</u>	<u>1</u>	<u>100</u>
PACKAGE	<u>91</u>	<u>91</u>	<u>91</u>	<u>91</u>
PACKAGE SEAL	<u>1</u>	<u>91</u>	<u>1</u>	<u>91</u>
LEAD FRAME INTERNAL LEADS	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>

TABLE 67 : FAILURE MODE DISTRIBUTION
PACKAGE: HERMETIC DIP

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	<u>329</u>	<u>67</u>	<u>328</u>	<u>67</u>
UNKNOWN	<u>1</u>	<u>< 1</u>		
BULK ASPECTS	<u>8</u>	<u>2</u>	<u>2</u>	<u>1</u>
UNKNOWN	6	75	7	100
DIFFUSION	2	25		
METALIZATION	<u>36</u>	<u>11</u>	<u>23</u>	<u>8</u>
UNKNOWN	13	36	13	57
OXIDE STEP/CUTOUT	13	36	1	4
MULTI-LAYER INTERFACE	1	3	9	39
BOND PAD	9	25		
OXIDE/DIELECTRIC	<u>81</u>	<u>25</u>	<u>74</u>	<u>25</u>
UNKNOWN	7	9	70	95
GATE OXIDE/DIELECTRIC	70	86	4	5
FIELD OXIDE/DIELECTRIC	4	4		
GLASSIVATION	<u>70</u>	<u>21</u>	<u>70</u>	<u>23</u>
SURFACE	<u>133</u>	<u>40</u>	<u>133</u>	<u>44</u>
INTERCONNECTS	<u>19</u>	<u>4</u>	<u>19</u>	<u>4</u>
WIRF	<u>5</u>	<u>26</u>	<u>5</u>	<u>26</u>
WIREBOND	<u>14</u>	<u>74</u>	<u>14</u>	<u>74</u>
WIREBOND AT DIE PAD	<u>14</u>	<u>100</u>		
UNKNOWN	14	100		
PACKAGE	<u>142</u>	<u>29</u>	<u>142</u>	<u>29</u>
PACKAGE SEAL	<u>136</u>	<u>26</u>	<u>136</u>	<u>96</u>
PACKAGE LID	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>
PACKAGE BODY	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
LEAD FRAME/EXTERNAL LEADS	<u>2</u>	<u>1</u>	<u>2</u>	<u>1</u>

TABLE 68 : FAILURE MODE DISTRIBUTIONS
PACKAGE: HERMETIC FPK

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	<u>26</u>	<u>38</u>	<u>26</u>	<u>38</u>
BULK ASPECTS	<u>1</u>	<u>6</u>		
UNKNOWN	1	100		
METALIZATION	<u>13</u>	<u>50</u>	<u>1</u>	<u>8</u>
UNKNOWN	12	92	1	100
CONTACT WINDOW	1	8		
OXIDE/DIELECTRIC	<u>9</u>	<u>35</u>	<u>9</u>	<u>69</u>
GATE OXIDE/DIELECTRIC	8	89	8	89
FIELD OXIDE/DIELECTRIC	1	11	1	11

TABLE 68 : FAILURE MODE DISTRIBUTION
PACKAGE: HERMETIC DIP (CONTINUED)

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
SURFACE	<u>3</u>	<u>11</u>	<u>3</u>	<u>23</u>
INTERCONNECTS	<u>9</u>	<u>33</u>	<u>9</u>	<u>33</u>
WIRE	<u>8</u>	<u>29</u>	<u>8</u>	<u>100</u>
WIREBOND UNKNOWN	<u>1</u>	<u>11</u> 100		
PACKAGE	<u>21</u>	<u>49</u>	<u>36</u>	<u>49</u>
PACKAGE SEAL	<u>11</u>	<u>29</u>	<u>32</u>	<u>36</u>
PACKAGE BODY	<u>1</u>	<u>3</u>	<u>1</u>	<u>3</u>
LEAD FRAME/EXTERNAL LEADS	<u>1</u>	<u>3</u>	<u>1</u>	<u>3</u>

TABLE 69 : FAILURE MODE DISTRIBUTION
PACKAGE: NONHERMETIC DIP

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIP	<u>107</u>	<u>26</u>	<u>107</u>	<u>26</u>
BULK ASPECTS UNKNOWN DEFINITION	<u>5</u> 2	<u>5</u> 20	<u>2</u>	<u>2</u> 100
METALLIZATION UNKNOWN	<u>6</u> 6	<u>1</u> 100		
OXIDE/DIELECTRIC CATH. OXIDE/DIELECTRIC	<u>1</u> 1	<u>1</u> 100	<u>1</u> 1	<u>1</u> 100
SURFACE	<u>95</u>	<u>89</u>	<u>95</u>	<u>97</u>
INTERCONNECTS	<u>127</u>	<u>30</u>	<u>127</u>	<u>30</u>
WIRE	<u>119</u>	<u>44</u>	<u>119</u>	<u>94</u>
WIREBOND	<u>8</u>	<u>6</u>	<u>8</u>	<u>6</u>
WIREBOND AT DIP PAD UNKNOWN	<u>8</u> 8	<u>200</u> 100		
PACKAGE	<u>184</u>	<u>44</u>	<u>184</u>	<u>44</u>
PACKAGE BODY	<u>144</u>	<u>28</u>	<u>144</u>	<u>28</u>
LEAD FRAME/EXTERNAL LEADS	<u>40</u>	<u>22</u>	<u>40</u>	<u>22</u>

TABLE 70 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: BIPOLAR

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
BROKEN	109	13
CHANNEL	4	< 1
CHIPOUT	1	< 1
CRACKED	154	19
ETCH FAULT	1	< 1
HILLOCK	2	< 1
IMPURITIES	2	< 1
LIFTED	2	< 1
LOOSE	1	< 1
MASK FAULT	31	4
MISALIGNED/MISPLACED	6	1
MISSING	1	< 1
OHMIC	3	< 1
OPEN (NOC)	22	3
PARTICLE BRIDGE	4	< 1
PINHOLE	18	2
SCRATCH	1	< 1
SHORT (NOC)	68	8
SMEAR	1	< 1
VOIDS	18	2
ZAPPED-EVAPORATED	4	< 1
FAULT (NOC)	258	32
FLASHOVER-ARC	6	1
PUNCH THROUGH	1	< 1
DISCOLORED	4	< 1
CORRODED	5	1
MELTED-FUSED	71	9
DIFFUSION FAULT	6	1
REVERSED	2	< 1
HOLE	1	< 1
TUNNELED	1	< 1
MISMARKED	2	< 1

TABLE 71 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: MOS

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
BROKEN	54	8
CHANNEL	95	15
CRACKED	6	1
IMPURITIES	19	3
LIFTED	15	2
MASK FAULT	191	30
OPEN (NOC)	1	< 1
PARTICLE BRIDGE	2	< 1
PINHOLE	2	< 1
SHORT (NOC)	9	1
FAULT (NOC)	237	37
PUNCH THROUGH	6	1
DIFFUSION FAULT	1	< 1
EXPOSED	4	1

TABLE 72 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: BIPOLAR (NOC)

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
CRACKED	1	50
PINHOLE	1	50

TABLE 73 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: TTL

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
BROKEN	107	21
CHANNEL	3	1
CHIPOUT	1	< 1
CRACKED	152	30
HILLOCK	2	< 1
LIFTED	2	< 1
MASK FAULT	10	2
MISALIGNED/MISPLACED	3	1
MISSING	1	< 1
OHMIC	1	< 1
OPEN (NOC)	10	2
PARTICLE BRIDGE	2	< 1
PINHOLE	5	1
SCRATCH	1	< 1
SHORT (NOC)	36	7
SMEAR	1	< 1
VOIDS	5	1
ZAPPED-EVAPORATED	2	< 1
FAULT (NOC)	101	20
FLASHOVER-ARC	6	1
PUNCH THROUGH	1	< 1
DISCOLORED	2	< 1
CORRODED	1	< 1
MELTED-FUSED	48	9
DIFFUSION FAULT	4	1
REVERSED	1	< 1
HOLE	1	< 1
TUNNELED	1	< 1

TABLE 74 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: STTL

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
BROKEN	2	6
ETCH FAULT	1	3
IMPURITIES	1	3
LOOSE	1	3
MASK FAULT	10	28
OPEN (NOC)	1	3
PINHOLE	2	6
SHORT (NOC)	3	8
FAULT (NOC)	11	31
DISCOLORED	1	3
MELTED-FUSED	3	8

TABLE 75 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: LSTTL

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
MASK FAULT	4	44
ZAPPED-EVAPORATED	1	11
FAULT (NOC)	2	22
DIFFUSION FAULT	1	11
MISMARKED	1	11

TABLE 76 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: L TTL

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
MASK FAULT	5	12
MISALIGNED/MISPLACED	1	2
OPEN (NOC)	6	15
PINHOLE	4	10
SHORT (NOC)	13	32
FAULT (NOC)	1	2
CORRODED	4	10
MELTED-FUSED	5	12
DIFFUSION FAULT	1	2
MISMARKED	1	2

TABLE 77 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: HTTL

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
CHANNEL	1	1
CRACKED	1	1
OPEN (NOC)	2	1
SHORT (NOC)	2	1
ZAPPED-EVAPORATED	1	1
FAULT (NOC)	136	87
MELTED-FUSED	14	9

TABLE 78 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: ECL

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
OHMIC	1	4
PINHOLE	5	22
VOIDS	13	57
FAULT (NOC)	4	17

TABLE 79 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: DTL

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
IMPURITIES	1	3
MASK FAULT	2	6
MISALIGNED/MISPLACED	2	6
OHMIC	1	3
OPEN (NOC)	3	9
PARTICLE BRIDGE	2	6
PINHOLE	1	3
SHORT (NOC)	14	44
FAULT (NOC)	3	9
DISCOLORED	1	3
MELTED-FUSED	1	3
REVERSED	1	3

TABLE 80 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: PMOS

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
PARTICLE BRIDGE	1	17
SHORT (NOC)	4	67
FAULT (NOC)	1	17

TABLE 81 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: CMOS

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
BROKEN	54	14
CHANNEL	95	24
CRACKED	6	2
IMPURITIES	15	4
LIFTED	1	< 1
MASK FAULT	181	46
OPEN (NOC)	1	< 1
PARTICLE BRIDGE	1	< 1
PINHOLE	2	1
SHORT (NOC)	2	1
FAULT (NOC)	21	5
PUNCH THROUGH	6	2
DIFFUSION FAULT	1	< 1
EXPOSED	4	1

TABLE 82 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: CMOS/SOS

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
IMPURITIES	4	2
LIFTED	14	6
MASK FAULT	10	4
SHORT (NOC)	3	1
FAULT (NOC)	215	87

TABLE 83 : FAILURE DEFECT DISTRIBUTIONS
PACKAGE: HERMETIC N/R

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
BROKEN	1	2
CRACKED	1	2
OPEN (NOC)	1	2
FAULT (NOC)	42	91
DIFFUSION FAULT	1	2

TABLE 84 : FAILURE DEFECT DISTRIBUTIONS
PACKAGE: HERMETIC DIP

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
BROKEN	2	< 1
CHIPOUT	1	< 1
CRACKED	8	2
IMPURITIES	20	4
LIFTED	14	3
MASK FAULT	28	6
OHMIC	1	< 1
OPEN (NOC)	2	< 1
PARTICLE BRIDGE	1	< 1
PINHOLE	9	2
SHORT (NOC)	13	3
VOIDS	13	3
ZAPPED-EVAPORATED	3	1
FAULT (NOC)	357	73
FLASHOVER-ARC	6	1
PUNCH THROUGH	1	< 1
DISCOLORED	1	< 1
MELTED-FUSED	3	1
DIFFUSION FAULT	2	< 1
REVERSED	1	< 1
TUNNELED	1	< 1
EXPOSED	4	1
MISMARKED	1	< 1

TABLE 85 : FAILURE DEFECT DISTRIBUTIONS
PACKAGE: HERMETIC FPK

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
BROKEN	1	1
CHANNEL	3	4
CRACKED	1	1
OPEN (NOC)	6	8
PARTICLE BRIDGE	2	3
PINHOLE	1	1
SHORT (NOC)	3	4
ZAPPED-EVAPORATED	1	1
FAULT (NOC)	33	46
PUNCH THROUGH	6	8
DISCOLORED	1	1
CORRODED	4	6
MELTED-FUSED	9	13
MISMARKED	1	1

TABLE 86 : FAILURE DEFECT DISTRIBUTIONS
PACKAGE: NONHERMETIC DIP

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
BROKEN	158	38
CHANNEL	95	23
CRACKED	147	35
LIFTED	3	1
OPEN (NOC)	1	< 1
SHORT (NOC)	2	< 1
VOIDS	5	1
FAULT (NOC)	2	< 1
MELTED-FUSED	2	< 1

TABLE 87 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: BIPOLAR

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	54	20
ELECTROLYSIS	3	1
ELECTROMIGRATION	20	7
INTERMETALLIC FORMATION	6	2
THERMAL DIFFUSION	1	< 1
WORKMANSHIP	93	34
PROCESS FLAW	92	34
TROUBLESHOOTING	5	2

TABLE 88 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: MOS

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	109	26
ELECTROLYSIS	4	1
INTERMETALLIC FORMATION	15	4
IONIC TRIFT	96	23
WORKMANSHIP	2	< 1
PROCESS FLAW	197	47

TABLE 89 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: BIPOLAR (NOC)

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
PROCESS FLAW	1	100

TABLE 90 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: TTL

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	45	36
ELECTROLYSIS	3	2
ELECTROMIGRATION	1	1
INTERMETALLIC FORMATION	6	5
THERMAL DIFFUSION	1	1
WORKMANSHIP	20	16
PROCESS FLAW	44	35
TROUBLESHOOTING	4	3

TABLE 91 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: STTL

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
ELECTROMIGRATION	1	4
WORKMANSHIP	5	18
PROCESS FLAW	22	79

TABLE 92 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: LSTTL

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	1	2
WORKMANSHIP	59	89
PROCESS FLAW	6	9

TABLE 93 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: LTTL

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	4	21
WORKMANSHIP	6	32
PROCESS FLAW	8	42
TROUBLESHOOTING	1	5

TABLE 94 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: HTTL

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
PROCESS FLAW	1	100

TABLE 95 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: ECL

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
ELECTROMIGRATION	18	95
PROCESS FLAW	1	5

TABLE 96 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: DTL

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	4	25
WORKMANSHIP	3	19
PROCESS FLAW	9	56

TABLE 97 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: CMOS

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	8	4
ELECTROLYSIS	4	2
INTERMETALLIC FORMATION	1	< 1
IONIC DRIFT	19	9
WORKMANSHIP	2	1
PROCESS FLAW	187	85

TABLE 98 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: CMOS/SOS

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	101	50
INTERMETALLIC FORMATION	14	7
IONIC DRIFT	77	38
PROCESS FLAW	10	5

TABLE 99 : FAILURE DEFECT CAUSE DISTRIBUTIONS
PACKAGE: HERMETIC N/R

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	1	14
CORROSION	1	14
ELECTROLYSIS	3	43
WORKMANSHIP	1	14
PROCESS FLAW	1	14

TABLE 100 : FAILURE DEFECT CAUSE DISTRIBUTIONS
PACKAGE: HERMETIC DIP

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	110	31
DENDRITE GROWTH	1	< 1
ELECTROLYSIS	4	1
ELECTROMIGRATION	20	6
INTERMETALLIC FORMATION	14	4
IONIC DRIFT	96	27
THERMAL DIFFUSION	1	< 1
WORKMANSHIP	70	20
PROCESS FLAW	41	11
TROUBLESHOOTING	1	< 1

TABLE 101 : FAILURE DEFECT CAUSE DISTRIBUTIONS
PACKAGE: HERMETIC FPK

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	7	50
WORKMANSHIP	2	14
PROCESS FLAW	5	36

TABLE 102 : FAILURE DEFECT CAUSE DISTRIBUTIONS
PACKAGE: NONHERMETIC DIP

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	39	80
INTERMETALLIC FORMATION	7	14
WORKMANSHIP	1	2
PROCESS FLAW	2	4

TABLE 103 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: BIPOLAR

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	225	36
ELECTROSTATIC DISCHARGE	19	3
CURRENT STRESS	14	2
HUMIDITY	11	2
MECHANICAL STRESS	4	1
PRESSURE	7	1
TEMPERATURE	83	13
THERMO-MECHANICAL STRESS	214	34
VOLTAGE STRESS	33	5
VOLTAGE AND CURRENT STRESS	21	3

TABLE 104 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: MOS

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	10	1
ELECTROSTATIC DISCHARGE	7	1
HUMIDITY	67	6
TEMPERATURE	551	49
THERMO-MECHANICAL STRESS	51	5
VOLTAGE STRESS	205	18
VOLTAGE AND CURRENT STRESS	224	20

TABLE 105 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: BIPOLAR (NOC)

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
HUMIDITY	1	50
TEMPERATURE	1	50

TABLE 106 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: TTL

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	123	28
ELECTROSTATIC DISCHARGE	3	1
CURRENT STRESS	7	2
HUMIDITY	9	2
PRESSURE	7	2
TEMPERATURE	53	12
THERMO-MECHANICAL STRESS	212	48
VOLTAGE STRESS	21	5
VOLTAGE AND CURRENT STRESS	7	2

TABLE 107 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: STTL

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	11	39
ELECTROSTATIC DISCHARGE	13	46
MECHANICAL STRESS	1	4
TEMPERATURE	2	7
VOLTAGE AND CURRENT STRESS	1	4

TABLE 108 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: LSTTL

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	1	17
TEMPERATURE	5	83

TABLE 109 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: LTTL

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	27	64
ELECTROSTATIC DISCHARGE	2	5
HUMIDITY	1	2
TEMPERATURE	3	7
VOLTAGE STRESS	9	21

TABLE 110 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: HTTL

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	21	81
CURRENT STRESS	2	8
MECHANICAL STRESS	1	4
VOLTAGE STRESS	2	8

TABLE 111 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: ECL

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
CURRENT STRESS	5	12
MECHANICAL STRESS	2	5
TEMPERATURE	19	46
THERMO-MECHANICAL STRESS	2	5
VOLTAGE AND CURRENT STRESS	13	32

TABLE 112 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: DTL

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	42	95
ELECTROSTATIC DISCHARGE	1	2
VOLTAGE STRESS	1	2

TABLE 113 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: PMOS

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTROSTATIC DISCHARGE	4	100

TABLE 114 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: CMOS

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	10	1
ELECTROSTATIC DISCHARGE	3	< 1
HUMIDITY	67	9
TEMPERATURE	315	44
THERMO-MECHANICAL STRESS	51	7
VOLTAGE STRESS	205	29
VOLTAGE AND CURRENT STRESS	59	8

TABLE 115 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: CMOS/SOS

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
TEMPERATURE	236	59
VOLTAGE AND CURRENT STRESS	165	41

TABLE 116 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
PACKAGE: HERMETIC N/R

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
MECHANICAL STRESS	1	33
TEMPERATURE	1	33
VOLTAGE STRESS	1	33

TABLE 117 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
PACKAGE: HERMETIC DIP

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	18	3
ELECTROSTATIC DISCHARGE	5	1
CURRENT STRESS	5	1
HUMIDITY	4	1
MECHANICAL STRESS	1	< 1
PRESSURE	3	1
TEMPERATURE	307	55
THERMO-MECHANICAL STRESS	10	2
VOLTAGE STRESS	27	5
VOLTAGE AND CURRENT STRESS	182	32

TABLE 118 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
PACKAGE: HERMETIC CAN

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTROSTATIC DISCHARGE	8	100

TABLE 119 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
PACKAGE: HERMETIC FPK

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	29	59
ELECTROSTATIC DISCHARGE	1	2
CURRENT STRESS	3	6
HUMIDITY	2	4
TEMPERATURE	3	6
VOLTAGE STRESS	10	20
VOLTAGE AND CURRENT STRESS	1	2

TABLE 120 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
PACKAGE: NONHERMETIC DIP

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	2	< 1
HUMIDITY	71	13
MECHANICAL STRESS	1	< 1
PRESSURE	4	1
TEMPERATURE	141	26
THERMO-MECHANICAL STRESS	255	48
VOLTAGE AND CURRENT STRESS	59	11

MICROCIRCUIT DEVICE RELIABILITY

DIGITAL EVALUATION AND
FAILURE ANALYSIS DATA

Section 4

DIGITAL FAILURE ANALYSIS DATA -
DETAILED LISTINGS

Section 4

DIGITAL FAILURE ANALYSIS DATA - DETAILED LISTINGS

The data presented within the computerized listings of this section were compiled from a multitude of reported failure events for digital SSI/MSI microcircuits. These failures have occurred under a variety of environmental conditions and during numerous categories of testing, including screening/environmental, life, and equipment-level testing, as well as actual field experience. Each failure event has been assigned a unique file number (MFEF report number) and is listed sequentially according to this number. Additionally, the MFEF report number serves as a cross-reference to the data listed in the Part 1, Section 2 environmental/screening computerized listings, thus linking the detailed failure analysis results with the detailed test results which culminated in device failure.

Within each microcircuit failure event record, the reader will find relevant information about the specific phenomena of failure, including the failure report date, the data source characteristics (source designation, device/board/equipment level test, test type, etc.), the failed device characteristics (device function, part number/manufacture/date code, device technology, screen class, package characteristics, etc.), and the failure analysis results (in terms of quantity failed, time-to-detection and failure indicator/mode/defect description/defect cause/activating stress). Finally, any information which is felt to clarify the conditions contributing to device failure has been included in a REMARKS field, thus giving the reader maximum insight into each failure event.

The reader is encouraged to familiarize himself with the format of the listings by reviewing the usage guide which follows, as well as the failure event structure/term lists of Appendix B, in order to more fully comprehend how he may best utilize the information in Section 4.

USAGE GUIDE

DIGITAL FAILURE ANALYSIS DATA

The description given below applies to the computer listings of Section 4. The circled numbers on the tabulation form below refer to the explanatory text which follows. A few minutes spent familiarizing oneself with the information supplied below will aid in the user's comprehension of the data contained herein.

<p>① MFEF REPORT NUMBER: 2</p> <p>③ DATA SOURCE: FE-0001 ④ SOURCE: BOARD LEVEL</p> <p>DEVICE FUNCTION: FLIP-FLOP ⑦</p> <p>PART NUMBER: 9601 ⑤</p> <p>DEVICE TECHNOLOGY: TTL ⑫</p> <p>PACKAGE: HERMETIC ⑮</p> <p>QUANTITY FAILED: 1 ⑰</p> <p>⑬ FAILURE INDICATOR: OPEN OUTPUT</p> <p>⑭ DEFECT DESCRIPTION: BROKEN</p>	<p>② MFEF REPORT DATE: 7604</p> <p>DATA-TYPE: CHECKOUT ⑥</p> <p>CIRCUIT TYPE: MONOSTABLE ⑧</p> <p>PART MANUFACTURER: ITT SEMICONDUCTOR ⑩</p> <p>SCREEN CLASS: N/A ⑬</p> <p>NUMBER OF PINS: 14 ⑮</p> <p>TIME TO DETECTION: 0 ⑰</p> <p>⑮ FAILURE MODE: WIREBOND</p> <p>⑯ DEFECT CAUSE: CONTAMINATION</p> <p>⑰ ACTIVATING STRESS A: N/R</p> <p>⑱ ACTIVATING STRESS B: N/R</p>
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⑲ REMARKS: NO OUTPUT AT PIN 6. OPEN WIREBOND DUE TO UNEXPECTED CONTAMINATION.

① MFEF REPORT NUMBER. Failure events are listed sequentially by MFEF Report Number. Each unique failure event is assigned its own number, where a failure event is defined as a detailed description of the physical/electrical failure attributes of a specific part number, including the failure indicator, failure mode, failure defect, failure defect cause, and failure activating stress(es), where such information is reported. This is the number which appears as item ⑮ in the Digital Evaluation-Detailed Listings of Section 2 of this publication.

② MFEF REPORT DATE. This date is reported in the format of year/month (e.g. 7804) and is assigned according to the following order of priority: A.) Date device failed; or B.) Date device was reported as failed; or C.) Date that failure report was submitted/written.

USAGE GUIDE
DIGITAL FAILURE ANALYSIS DATA (Cont'd)

- ③ DATA SOURCE. Indicates the unique data source from which each failure event was reported. The first two alphabetic characters of the code represent the intended/applied environment of the appropriate device/equipment. The final four integers of the code are assigned sequentially within each coded environment to maintain the identity of the data source. Data source prefixes are defined as follows:

AF Airborne, Fighter (Environment Unknown)
AIF Airborne, Inhabited, Fighter
AIT Airborne, Inhabited, Transport
AT Airborne, Transport (Environment Unknown)
AUF Airborne, Uninhabited, Fighter
AUT Airborne, Uninhabited, Transport
GB Ground, Benign
GF Ground, Fixed
GM Ground, Mobile
GP Ground, Portable
GT Ground, Transport
ML Missile, Launch
NS Naval, Sheltered
NSS Naval, Sheltered, Submarine
NU Naval, Unsheltered
PA Part-Level, Government Agency Tested
PI Part-Level, Independent Test Lab Tested
PM Part-Level, Part Manufacturer Tested
PQ Part-Level, Government Qualification
PU Part-Level, Part User Tested
SF Space, Flight
SL Satellite, Launch

- ④ SOURCE. Identifies the data source level at which the failure(s) was reported, i.e., component level, board level, or equipment level.

USAGE GUIDE
DIGITAL FAILURE ANALYSIS DATA (Cont'd)

- ⑤ DATA TYPE. Indicates the test environment to which the component/board/equipment was subjected. Categories are listed as follows:

BURN-IN	Device Burn-In (<250 hrs.)
CHECKOUT	Equipment Check
DEVICE EVALUATION	Non-Stress Evaluation
ENVIRONMENTAL	Environmental Test
FIELD	Field Experience
LIFE	Device Laboratory Life (>250 hrs.)
REL DEMO	Equipment Reliability Demonstration
REL PROD DEMO	Reliability Production Demonstration

NOTE: For DEVICE EVALUATION tests, quantity failed is indicated as zero, since no stress tests have been applied to verify the failure. These results, therefore, are excluded from the summary tables.

- ⑥ APPLICATION ENV. The actual or intended environment from which the failure data was reported. The definitions used here are identical to the conventions defined in item 3, except that the part-level codes (PA, PI, PM, PQ, PU) do not constitute an operational environment and, hence, are not included within this category.
- ⑦ DEVICE FUNCTION. The device function represents the basic circuit function/classification of the device which failed under test.
- ⑧ CIRCUIT TYPE. The circuit type further identifies the specialized characteristics of a given device function.
- ⑨ PART NUMBER. Represents the full manufacturer's commercial part number for the failed device including any stated prefix or suffix designations.

USAGE GUIDE
DIGITAL FAILURE ANALYSIS DATA (Cont'd)

⑩ PART MANUFACTURER. Manufacturer of the failed device, indicated by the part number.

⑪ DATE CODE. This date is usually reported in the format of year/week (e.g. 7848) and is assigned by the device manufacturer to indicate the date of fabrication.

⑫ DEVICE TECHNOLOGY. Represents the fabrication technology applied in the implementation of the failed device.

⑬ SCREEN CLASS. Indicates the screen class represented by the failed device(s). The appropriate definitions are included below:

JS	38510, Class S
S-1	883 Method 5004, Screen Class S
JB	38510, Class B
B-1	883 Method 5004, Screen Class B
B-2	Class B, vendor or user equivalent
JC	38510, Class C
C-1	883 Method 5004, Screen Class C
C-2	Class C, vendor or user equivalent
D	Hermetic pkg., no screening beyond normal Q.C.
E	Plastic pkg., no screening beyond normal Q.C.
S/R	See Remarks. Device quality defined in item 24 REMARKS
JAN	38510, Screen Class not reported
883	883, probably Method 5004, Screen Class not reported

⑭ COMPLEXITY. Represents the complexity of the failed device in terms of the number of gates (G), the number of bits (B), or the number of transistors (T).

⑮ PACKAGE. Indicates the materials used for package enclosure and the type of construction used in the package design, as indicated on the following page:

USAGE GUIDE
DIGITAL FAILURE ANALYSIS DATA (Cont'd)

PACKAGE ENCLOSURES:

NONHERMETIC	HERMETIC
EPOXY	CERAMIC
SILICONE	METAL
PHENOLIC	CERAMIC/METAL
	METAL/GLASS
	GLASS/GLASS

PACKAGE CONSTRUCTION:

DIP	Dual In-Line Package
CAN	Can Package
FPK	Flatpack
QIP	Quad In-Line Package
LLP	Leadless Package
CRR	Chip Carrier

- ①⑥ NUMBER OF PINS. Represents the number of pins as applied to the package construction.
- ①⑦ QUANTITY FAILED. The quantity of identical part number failures exhibiting the exact failure description and occurring within the same failure event, meaning identical data source, test and device information, failure analysis description, time-to-detection, etc.
- ①⑧ TIME-TO-DETECTION. This value, expressed in hours, represents the reported or calculated time of the device under test before a) a verified failure actually occurs, or b) a verified failure is finally detected.

USAGE GUIDE
DIGITAL FAILURE ANALYSIS DATA (Cont'd)

- ⑲ FAILURE INDICATOR. That failure condition identified by parametric measurements of the device prior to performing destructive analyses.

- ⑳ FAILURE MODE. The physical location within the device which is caused to catastrophically fail or degrade due to exposure to chemical/electrical/mechanical/thermal environments.

- ㉑ DEFECT DESCRIPTION. A detailed description of the physical characteristics of the failure mode.

- ㉒ DEFECT CAUSE. The responsible chemical/electrical/mechanical/thermal phenomena which culminated in device parameter degradation, catastrophic failure.

- ㉓ FAILURE ACTIVATING STRESS. The physical characteristic(s) of stress which was primarily responsible for activating the failure defect cause/description.

- ㉔ REMARKS. Contains additional comments which describe, in additional detail, the conditions or activities which lead to the occurrence of a failure event. This section may also contain information about device screen class levels not defined sufficiently in item 13.

MFEF REPORT NUMBER: 1

MFEF REPORT DATE: 7609

DATA SOURCE: FF-0001 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: SN74LS253
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: FIELD
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/P
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7515
 COMPLEXITY: 16 G

FAILURE INDICATOR: IMPROPER LOGIC STATE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: DIE DIFFUSION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: SELECT CIRCUIT FAILED TO MAINTAIN LOGIC 1 INPUT. SCHOTTKY DIODE LEAK AT BASE OF INPUT TRANSISTOR, PIN 2.

MFEF REPORT NUMBER: 2

MFEF REPORT DATE: 7604

DATA SOURCE: FF-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 9601
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC FPV
 QUANTITY FAILED: 1

DATA-TYPE: CHECKOUT
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: CF

DATE CODE: 7534
 COMPLEXITY: 8 G

FAILURE INDICATOR: OPEN OUTPUT
 DEFECT DESCRIPTION: BROKEN

FAILURE MODE: WIRFBOND
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: N/P
 ACTIVATING STRESS B: N/R

REMARKS: NO OUTPUT AT PIN 6. OPEN WIRFBOND DUE TO CHLORINATED CONTAMINATION.

MFEF REPORT NUMBER: 4

MFEF REPORT DATE: 7509

DATA SOURCE: FE-0001 SOURCE: N/R
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 54175
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: C
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7430
 COMPLEXITY: 26 G

FAILURE INDICATOR: OUTPUT LATCHING
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: DIE BULK
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: AT 50 DEG C PIN 7 WAS LATCHED HI AND PIN 6 WAS LATCHED LOW. BULK DEFECT FROM VCC CONTACT TO INPUT TRANSISTOR T18.

MFEF REPORT NUMBER: 5

MFEF REPORT DATE: 7610

DATA SOURCE: AU-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5402
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: BURN-IN
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: JS
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: AUF

DATE CODE: C
 COMPLEXITY: 4 G

FAILURE INDICATOR: INTERMITTENT SHORT INPUT
 DEFECT DESCRIPTION: N/R

FAILURE MODE: OXIDE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: INTERNAL SHORT BETWEEN PINS 2 AND 7 DUE TO SHORTED INPUT CLAMP DIODE AT PIN 2. FAILED DURING 6TH CYCLE, +25C, NO VIBRATION

MFEF REPORT NUMBER: 6

MFEF REPORT DATE: 7612

DATA SOURCE: AU-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5402
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: BURN-IN
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: JS
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: AU2

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: SHORT INPUT
 DEFECT DESCRIPTION: FLASHOVER-AFC

FAILURE MODE: SURFACE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: INTERNAL SHORT PIN 2 TO 7 AT PIN 2 INPUT CLAMP DIODE DUE TO POS. VOLT. OVERSTRESS. FAILED 16TH CYC, +25C, NO VIBRATION

MFEF REPORT NUMBER: 7

MFEF REPORT DATE: 7612

DATA SOURCE: AU-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5402
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: BURN-IN
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: JB
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: AUF

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: SHORT INPUT
 DEFECT DESCRIPTION: FLASHOVER-ARC

FAILURE MODE: SURFACE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: INTERNAL SHORT PIN 5 TO 7 AT PIN 5 INPUT CLAMP 910E DUE TO POS. VOLT. OVERSTRESS. FAILED 16TH CYC,+25C,NO VIBRATION

MFEF REPORT NUMBER: 9

MFEF REPORT DATE: 7611

DATA SOURCE: AU-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5410
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: BURN-IN
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: JB
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: AUF

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: FLASHOVER-ARC

FAILURE MODE: SURFACE
 DEFECT CAUSE: TROUBLESHOOTING

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: RESISTIVE SHORTS BETWEEN PINS 10,11 AND VCC. FLASHOVER OBSERVED BETWEEN INPUT TRANS EMITTERS. FAILED 12TH CYC,+25C

MFEF REPORT NUMBER: 10

MFEF REPORT DATE: 7611

DATA SOURCE: AU-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5410
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: BURN-IN
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: JB
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: AUF

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: FLASHOVER-ARC

FAILURE MODE: SURFACE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: PINS 1,2 RESISTIVE SHORT TO GND. PIN 13 DIRECT SHORT TO GND. FLASHOVER SHORTS AT THESE PINS. FAILED 12TH CYC,-54C,NO VIB.

MFEF REPORT NUMBER: 12

MFEF REPORT DATE: 7612

DATA SOURCE: AU-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: RC5405F
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: RFL PROD DEMO
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: E-2
 NUMBER OF PINS: 14
 TIME TO DETECTION: 13

APPLICATION ENV: AUF

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: PUNCH THROUGH

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: PUNCH-THROUGH SHORT (PIN 21-TO-FIN 7 GND) IN OUTPUT TRANSISTOR. FAILED DURING 2ND CYC. TEMP. TRANSITION,NO VIBRATION.

MFEF REPORT NUMBER: 15

MFEF REPORT DATE: 7705

DATA SOURCE: AU-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 5423
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: RFL PROD DEMO
 CIRCUIT TYPE: JK
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: JB
 NUMBER OF PINS: 14
 TIME TO DETECTION: 13

APPLICATION ENV: AUF

DATE CODE: 0
 COMPLEXITY: 20 G

FAILURE INDICATOR: OUTPUT LATCHING
 DEFECT DESCRIPTION: ZAPPED-EVAPORATED

FAILURE MODE: METAL BOND PAD
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: AL CONDUCTOR FROM INPUT PAD 7 TO EMITTER WINDOW FUSED OPEN. EMITTER WINDOW-TO-GND SHORT. SHORTED B-E JNCT OF P14 IN. XRA

MFEF REPORT NUMBER: 16

MFEF REPORT DATE: 7705

DATA SOURCE: AU-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5410
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: REL PROD DEMO APPLICATION ENV: AUF
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: JB
 NUMBER OF PINS: 14
 TIME TO DETECTION: 13

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: ZAPPED-EVAPORATED

FAILURE MODE: METALLIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: RELATED TO MFEF 15. SHORTED C-B JUNCTION RESULTING IN FUSED OPEN EMITTER AL CONDUCTOR. FAILED 3RD CYC, -54C, NO VIBRATION.

MFEF REPORT NUMBER: 17

MFEF REPORT DATE: 7706

DATA SOURCE: AU-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 2602
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: REL PROD DEMO APPLICATION ENV: AUF
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: ADVANCED MICRO DEVICES
 SCREEN CLASS: B-2
 NUMBER OF PINS: 16
 TIME TO DETECTION: 29

DATE CODE: 0
 COMPLEXITY: 14 G

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: FLASHOVER-ARC

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: E-B VOLTAGE FLASHOVER AT TRANSISTOR 012, SIDE A. FAILED DURING 5TH CYCLE, +71C, NO VIBRATION.

MFEF REPORT NUMBER: 20

MFEF REPORT DATE: 7501

DATA SOURCE: AU-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: RC5402F
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: REL PROD DEMO APPLICATION ENV: AUF
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: B-2
 NUMBER OF PINS: 14
 TIME TO DETECTION: 6

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: FLASHOVER-ARC

FAILURE MODE: SURFACE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: COLLECTOR [PIN 1]-TO-EMITTER [GND] FLASHOVER. FAILED DURING 2ND CYCLE, -54C, NO VIBRATION.

MFEF REPORT NUMBER: 22

MFEF REPORT DATE: 7509

DATA SOURCE: AU-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5402
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: REL PROD DEMO APPLICATION ENV: AUF
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: B-2
 NUMBER OF PINS: 14
 TIME TO DETECTION: 16

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: BROKEN

FAILURE MODE: WIRE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
 ACTIVATING STRESS B: N/R

REMARKS: PIN 12 LEAD WIRE BROKEN ABOVE GLASS SEALANT COVERING BOND. NO COMPENSATION FOR VIB/TEMP EFFECTS IN LEAD DRESS. 3RD C, +71

MFEF REPORT NUMBER: 23

MFEF REPORT DATE: 7512

DATA SOURCE: AU-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5402
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: REL PROD DEMO APPLICATION ENV: AUF
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: B-2
 NUMBER OF PINS: 14
 TIME TO DETECTION: 33

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: SHORT OUTPUT
 DEFECT DESCRIPTION: DISCOLORING

FAILURE MODE: SURFACE
 DEFECT CAUSE: THERMAL DIFFUSION

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: EOS AT C-F OF OUTPUT TRANSISTOR. DISCOLORATION DUE TO THERMAL BUILD-UP. NON-RELATED DEFECT OF AL INTERCONNECT COVERS F&B.

MFEF REPORT NUMBER: 24

MFEF REPORT DATE: 7404

DATA SOURCE: FE-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: S74H41N
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: PROXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: CRACKED

FAILURE MODE: DIE BULK
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: MECHANICAL STRESS
 ACTIVATING STRESS B: N/R

REMARKS: CHIP CRACKED IN 2 PIECES. NO EVIDENCE OF FOS. STRAIN AND MICROCRACKS IN CRYSTAL SUBSTRATE STRUCTURE EVOLVED INTO CRACK.

MFEF REPORT NUMBER: 27

MFEF REPORT DATE: 7607

DATA SOURCE: FE-0001 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: DM9820AN
 DEVICE TECHNOLOGY: BIPOLAR (NPN)
 PACKAGE: PROXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: BURN-IN APPLICATION ENV: N/R
 CIRCUIT TYPE: LINE RECEIVER
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7408
 COMPLEXITY: 20 T

FAILURE INDICATOR: OPEN INPUT
 DEFECT DESCRIPTION: CORRODED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: CORROSION AT PIN 1 DUE TO METALIZATION (ALUMINUM) DUE TO PHOSPHOR CONTAMINANT CAUSED OPEN.

MFEF REPORT NUMBER: 28

MFEF REPORT DATE: 7606

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 5475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: JB
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7443
 COMPLEXITY: 24 G

FAILURE INDICATOR: NON-FUNCT. IN-OP. CATAST
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE AND CURRENT STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: METALIZATION RUN [PIN 2 TO 3] MELTED OPEN. CHANNEL SHORTS AT PIN 2 INPUT TRANS. SUSPECT 1 MJOULE (.01UF, 500V) EOS AT P2

MFEF REPORT NUMBER: 30

MFEF REPORT DATE: 7606

DATA SOURCE: FE-0001 SOURCE: N/R
 DEVICE FUNCTION: INVERTER
 PART NUMBER: SN5404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: JAN
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7328
 COMPLEXITY: 6 G

FAILURE INDICATOR: OPEN INPUT
 DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: CURRENT STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: METALIZATION BLOWN OPEN AT INPUT PIN 1. SUSPECT FOS BETWEEN 500-700 MA AS ASSOCIATED 1-500 MA FOS IN LEAD WIRE WAS OK.

MFEF REPORT NUMBER: 31

MFEF REPORT DATE: 7606

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54411
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: IMPROPER OUTPUT SWITCHING
 DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: CURRENT STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: FOS OPENED INPUT METALIZATION PATHS ON BOTH DEVICES. NO OPEN LEAD WIRES ON EITHER DEVICE (EOS-500-700 MA).

MFEF REPORT NUMBER: 36

MFEF REPORT DATE: 7606

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: CN75324
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC EPV
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: MEMORY DRIVER
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7222
 COMPLEXITY: 24 T

FAILURE INDICATOR: INPUT LEAKAGE
 DEFECT DESCRIPTION: DISCOLORED

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE AND CURRENT STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: E-C PUNCH-THRU OF BOTH PIN 1 INPUT TRANSISTORS. SIMULATION DUPLICATED EOS DAMAGE WITH 300USFC, +10V, 300MA PULSE.

MFEF REPORT NUMBER: 39

MFEF REPORT DATE: 7704

DATA SOURCE: FF-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: DM5406J
 DEVICE TECHNOLOGY: TTL
 PACKAGE: GLASS/GLASS DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7535
 COMPLEXITY: 6 G

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: FIELD OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: R-C LEAKAGE OF P10 OUTPUT TRANSISTOR. METALIZATION REMOVAL CURED DEVICE. SUSPECT PINHOLE/OXIDE FAULT UNDER METALIZATION.

MFEF REPORT NUMBER: 41

MFEF REPORT DATE: 7901

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: JB
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7730
 COMPLEXITY: 6 G

FAILURE INDICATOR: NON-FUNCT. IN-OP. CATH
 DEFECT DESCRIPTION: ZAPPED-EVAPORATED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: BLOWN METAL BETWEEN OUTPUT TRANS. COLLECTOR AND PIN 12 PAD. CHANNEL SHORT C-F/GND AT PIN 12, LEAD WIRE NOT DAMAGED.

MFEF REPORT NUMBER: 42

MFEF REPORT DATE: 7901

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER:
 DEVICE TECHNOLOGY: N/R
 PACKAGE: N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: SHORT
 DEFECT DESCRIPTION: EXTRANEOUS WIRE

FAILURE MODE: INTERCONNECTS
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: MULTIPLE PIN SHORTS DUE TO EXTRANEOUS WIRE (0.0005IN X 0.200IN STAINLESS STEEL) SHORTING INTERNAL LEAD WIRES.

MFEF REPORT NUMBER: 43

MFEF REPORT DATE: 7901

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: N/R

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
 ACTIVATING STRESS B: N/R

REMARKS: INPUT PIN 13 HAD DEGRADED PHASE-SPLITTER TRANSISTOR S-F JUNCTION. ANALYSIS DID NOT REVEAL OBVIOUS LEAKAGE CAUSE.

MFEF REPORT NUMBER: 44

MFEF REPORT DATE: 7812

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 507-0001
 DEVICE TECHNOLOGY: BIPOLAR (COC)
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTEON
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: IMPROPER OUTPUT SWITCHING
 DEFECT DESCRIPTION: PINHOLE

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: STRIPPING GLASSIVATION/METALIZATION REVEALED OXIDE PINHOLE UNDER EMITTER METAL CAUSING E-TO-C(SUBSTRATE) SHORT.

MFEF REPORT NUMBER: 45

MFEF REPORT DATE: 7810

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
 ACTIVATING STRESS B: N/R

REMARKS: TRANSISTOR FAILURE. REMOVING METALIZATION AND OXIDE DID NOT REVEAL FAILURE SITE OR CAUSE.

MFEF REPORT NUMBER: 47

MFEF REPORT DATE: 7804

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: S8890V
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: INTERMITTENT SHORT INPUT
 DEFECT DESCRIPTION: N/R

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: FAILS BELOW 10% AT 100% ANALYSIS WAS INCONCLUSIVE, BUT SUSPECTED CAUSE IS Pb PRECIPITATE ON EXT. LEAD SEAL AREA.

MFEF REPORT NUMBER: 49

MFEF REPORT DATE: 7802

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: REGISTER
 PART NUMBER: S82700
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 4 B

FAILURE INDICATOR: FLUCT OSC OUTPUT
 DEFECT DESCRIPTION: PINHOLE

FAILURE MODE: FIELD OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT PIN IS SWITCHING AT CLOCK RATE BELOW ROOM TEMP. STRIPPING METALIZATION REVEALED EVIDENCE OF PINHOLES.

MFEF REPORT NUMBER: 50

MFEF REPORT DATE: 7807

DATA SOURCE: FE-0001 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: S8821W
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: FLUCT OSC OUTPUT
 DEFECT DESCRIPTION: N/R

FAILURE MODE: DIE BULK
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE STRESS

REMARKS: OUTPUT PIN OSCILLATES WITH VCC > 4.6V AND/OR TEMP. > +25C. SI WAFER CONTAMINATION PRIOR TO EPI GROWTH. PROCESS DEFECT.

MFEF REPORT NUMBER: 52

MFEF REPORT DATE: 7611

DATA SOURCE: AU-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 2

DATA-TYPE: BURN-IN APPLICATION ENV: AUF
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: JR
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE AND CURRENT STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: PIN 5 INTERNALLY GROUNDED, LATCHING OUTPUTS HIGH. CROSS-COUPLING BETWEEN LOGIC LINES AND HIGHER VOLT/CUR = OVRSTRESS

MFEF REPORT NUMBER: 53

MFEF REPORT DATE: 7806

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER:
 DEVICE TECHNOLOGY: N/R
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 7639
 COMPLEXITY: 0

FAILURE INDICATOR: OPEN OUTPUT
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: WIRF
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: CURRENT STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: MELTED OPEN 1.25 MIL ALUM. WIPE WITH NO APPARENT CHIP DAMAGE DUE TO A HIGH CURRENT (>1 AMP) SHORT DURATION TRANSIENT EOS

MFEF REPORT NUMBER: 54

MFEF REPORT DATE: 7708

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 8470
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R DIP
 QUANTITY FAILED: 1

DATA-TYPE: FIELD APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7731
 COMPLEXITY: 3 G

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: CHANNEL

FAILURE MODE: CATH OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: RESISTIVE OUTPUT TO GND AT PIN 5. C-B CHANNEL SHORT AT OUTPUT TRANSISTOR. NO METAL DAMAGE INDICATES HI VOLT. SHORT TERM

MFEF REPORT NUMBER: 55

MFEF REPORT DATE: 7707

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: REGISTER
 PART NUMBER: DM54L16SJ
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7529
 COMPLEXITY: 8 B

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: N/R

FAILURE MODE: DIF
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT WOULD NOT HOLD HIGH WITH INPUT PIN 3 HIGH AT TEMP. <=25C. COULD NOT DETERMINE CAUSE. SUSPECT PROCESS FLAWS IN DIF

MFEF REPORT NUMBER: 56

MFEF REPORT DATE: 7807

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54LS02
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: JR
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7742
 COMPLEXITY: 4 G

FAILURE INDICATOR: NON-FUNCT. IN-OP. CATH
 DEFECT DESCRIPTION: MASK FLAW

FAILURE MODE: METAL BOND PAD
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: LOW BREAKDOWN OF INPUT PINS DUE TO EITHER AN OXIDE DEFECT UNDER DIF BOND PAD OR AN OVERRIDDING CONDITION. BOTH PROCESSES

MFEF REPORT NUMBER: 58

MFEF REPORT DATE: 7706

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: S8840W
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC FFW
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE
 DEFECT DESCRIPTION: CHANNEL

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: E-C CHANNEL, PIN 8 INPUT TRANSISTOR. B-E CHANNEL, SUMMING TRANSISTOR. MELTED PATH AT BASE OF LOWER OUTPUT TRANSISTOR.

MFEF REPORT NUMBER: 59

MFEF REPORT DATE: 7706

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: S8840W
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: CERAMIC FFW
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: CHANNEL

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: E-C CHANNEL, PIN 8 INPUT TRANSISTOR. B-E CHANNEL, PHASE SPLITTER TRANSISTOR. MELTED PATHS B&E CIRCUIT OF PHASE SPLITTER.

MFEF REPORT NUMBER: 60

MFEF REPORT DATE: 7705

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: SN74S10N
 DEVICE TECHNOLOGY: STTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7606
 COMPLEXITY: 3 G

FAILURE INDICATOR: SHORT INPUT
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: GATE INPUT PINS 3,4 AND 5 SHORTED TO PIN 14 (VCC) AND PIN 7 (GND). DEVICE DESTROYED AT AUTOPST - FAILURE CAUSE UNKNOWN.

MFEF REPORT NUMBER: 61

MFEF REPORT DATE: 7705

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 74S11PC
 DEVICE TECHNOLOGY: STTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7613
 COMPLEXITY: 3 G

FAILURE INDICATOR: SHORT
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT PIN 8, INPUT PINS 9,10 SHORTED TO PIN 7 (GND). SUSPECT PACKAGING MOISTURE. MELTED METAL AND LEAD WIRES AT PIN 7-10

MFEF REPORT NUMBER: 62

MFEF REPORT DATE: 7705

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 74S20A2
 DEVICE TECHNOLOGY: STTL
 PACKAGE: SILICONE DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7611
 COMPLEXITY: 2 G

FAILURE INDICATOR: SHORT
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT PIN 8, INPUT PINS 9,10,12 SHORTED TO PIN 7 (GND). MELTED BRIDGING METAL ON DIE DUE TO MASK DEFECT.

MFEF REPORT NUMBER: 63 MFEF REPORT DATE: 7764

DATA SOURCE: FE-0001	SOURCE: COMPONENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER		CIRCUIT TYPE: N/R	
PART NUMBER: 38510-10272		PART MANUFACTURER: SIGNATICS	DATE CODE: 7614
DEVICE TECHNOLOGY: LS TTL		SCREEN CLASS: JAN	COMPLEXITY: 4 G
PACKAGE: HERMETIC N/R		NUMBER OF PINS: 7	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: OUTPUT LEAKAGE
 DEFECT DESCRIPTION: DIFFUSION FAULT

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: DIE DIFFUSION
 DEFECT CAUSE: PROCESS FLAW

REMARKS: B-E LEAKAGE OF PIN 8 OUTPUT TRANSISTOR. GLASS PASSIVATION & METALIZATION REVEALED NO DEFECT. E-B DIFFUSION FAULT.

MFEF REPORT NUMBER: 64 MFEF REPORT DATE: 7703

DATA SOURCE: FE-0001	SOURCE: BOARD LEVEL	DATA-TYPE: N/R	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 88826		PART MANUFACTURER: SIGNATICS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: N/R	COMPLEXITY: 4 G
PACKAGE: CERAMIC FPA		NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: OPEN OTHER
 DEFECT DESCRIPTION: MELTED FUSED

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

REMARKS: NO PACKAGE LEAD FORESS ABNORMALITIES. PIN 11 AND METAL FUSED OPEN. EOS ORIGINATED AT SINK TRANSISTOR OF OUTPUT PIN 12.

MFEF REPORT NUMBER: 65 MFEF REPORT DATE: 7634

DATA SOURCE: FE-0001	SOURCE: BOARD LEVEL	DATA-TYPE: N/R	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: DT1963		PART MANUFACTURER: ITT SEMICONDUCTOR	DATE CODE: 7110
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: N/R	COMPLEXITY: 3 G
PACKAGE: N/R N/R		NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: PARTICLE BRIDGE

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: METALIZATION
 DEFECT CAUSE: WORKMANSHIP

REMARKS: OUTPUT PIN 4 LOCKED HIGH. METALIZATION BRIDGE SHORTING OUTPUT TRANSISTOR C-TO-INPUT TRANSISTOR F DUE TO MFG. TOOL SMEAR.

MFEF REPORT NUMBER: 66 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0001	SOURCE: BOARD LEVEL	DATA-TYPE: N/R	APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP		CIRCUIT TYPE: JK	
PART NUMBER: 78513		PART MANUFACTURER: SIGNATICS	DATE CODE: 7417
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: JAN	COMPLEXITY: 14 G
PACKAGE: HERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: SPOR. SUPPLY
 DEFECT DESCRIPTION: REVERSED

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: PACKAGE LID
 DEFECT CAUSE: WORKMANSHIP

REMARKS: NOTCH IN PACKAGE LID DESIGNATING PIN 1 ALIGNMENT NOT COINCIDENT WITH NOTCH IN THE PACKAGE BASE.

MFEF REPORT NUMBER: 67 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0001	SOURCE: COMPONENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP		CIRCUIT TYPE: JK	
PART NUMBER: 78513		PART MANUFACTURER: SIGNATICS	DATE CODE: 0
DEVICE TECHNOLOGY: N/R		SCREEN CLASS: N/R	COMPLEXITY: 14 G
PACKAGE: N/R N/R		NUMBER OF PINS: 0	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: PROCESS FLAW

REMARKS: NO VISUAL EXT INT ANOMALIES. OUTPUTS TOGGLE ON CLOCK TRANSITIONS. ALL INPUTS HIGH. OUTPUT FOLLOWED CLOCK W/ PL14,13 LOW

MFEF REPORT NUMBER: 68

MFEF REPORT DATE: 7609

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: S8840W
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS DATE CODE: 0
 SCREEN CLASS: N/R COMPLEXITY: 2 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT, IN-OP, CATAS
 DEFECT DESCRIPTION: CHANNEL

FAILURE MODE: METALLIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS CHANNEL SHORTS (ACROSS IN. PROT. DIODES OF P3,5, BETW. P6 E AND P7 E). BURNED OPEN METAL FROM INPUT P5,P6. +11VDC EOS.

MFEF REPORT NUMBER: 69

MFEF REPORT DATE: 7608

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: SN7403J
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7344
 SCREEN CLASS: N/R COMPLEXITY: 4 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: OXIDE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS SHORT CLEARED AFTER DELIDDING-EXCESSIVE OXIDE FLAWS ON CHIP-DEFECT IS RESULT OF MOBILE PARTICLE (NONE FOUND) OR OXIDE FL

MFEF REPORT NUMBER: 70

MFEF REPORT DATE: 7608

DATA SOURCE: FE-0001 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: N/R
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NOT REPORTED DATE CODE: 0
 SCREEN CLASS: N/R COMPLEXITY: 4 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 4100

FAILURE INDICATOR: NON-FUNCT, IN-OP, CATAS
 DEFECT DESCRIPTION: CORRODED

FAILURE MODE: SURFACE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: HUMIDITY
 ACTIVATING STRESS B: N/R

REMARKS OPEN NICHROME RESISTOR IN BASE CXT OF INPUT TRANSISTOR AS RESULT OF ANODIC CORROSION DUE TO PACKAGE MOISTURE. MFG RELATE

MFEF REPORT NUMBER: 71

MFEF REPORT DATE: 7603

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: DM54100F
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: METAL/GLASS FPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7541
 SCREEN CLASS: N/R COMPLEXITY: 4 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT, IN-OP, CATAS
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: METALLIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS PIN 10 INPUT TRANSISTOR: B-E [1] SHORTED, C-E [1] DEGRADED. B-E [2], C-E [2] AND E[1]-E[2] WERE ALL UNDAMAGED.

MFEF REPORT NUMBER: 72

MFEF REPORT DATE: 7509

DATA SOURCE: FE-0001 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: DTL945
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: RS
 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7320
 SCREEN CLASS: N/R COMPLEXITY: 8 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT, IN-OP, CATAS
 DEFECT DESCRIPTION: REVERSED

FAILURE MODE: PACKAGE LID
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS. INOPERATIVE, EXCESSIVE VCC (>30 AMPS) BEING DRAWN. PIN INDEX MARK INDICATES PIN 8, NOT PIN 1. WHITE DOT IN CASE IS CORRECT

MFEF REPORT NUMBER: 73

MFEF REPORT DATE: 7511

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: D454L54F
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: METAL/GLASS EPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEM DATE CODE: 7340
 SCREEN CLASS: N/R COMPLEXITY: 5 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT INPUT
 DEFECT DESCRIPTION: MISALIGNED/MISWACPD

FAILURE MODE: PACKAGE BODY
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: 40-0HM SHORT BETWEEN PINS 3 AND 4. PINS 1 AND 8 INTERCHANGED DUE TO INCORRECT IN-HOUSE PART MARKING. PART USER DEFECT.

MFEF REPORT NUMBER: 74

MFEF REPORT DATE: 7509

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: N/R
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: DATE CODE: 0
 SCREEN CLASS: N/R COMPLEXITY: 6 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT INPUT
 DEFECT DESCRIPTION: PARTICLE BRIDGE

FAILURE MODE: PACKAGE LEAD FRAME/EXTERNAL LEADS
 DEFECT CAUSE: DENDRITE GROWTH

ACTIVATING STRESS A: HUMIDITY
 ACTIVATING STRESS B: N/R

REMARKS: PB CONTAMINATION BRIDGED/SHORTED PINS 2-3 AT Pkg. LEAD FRAME. GLASS FRIT LID SEAL PB RICH-NON-HERMETIC PKG = DENDRITES.

MFEF REPORT NUMBER: 75

MFEF REPORT DATE: 7605

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: N/R
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: DATE CODE: 0
 SCREEN CLASS: N/R COMPLEXITY: 4 G
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: CRACKED

FAILURE MODE: WIREBOND LEAD FRAME HEEL
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: MECHANICAL STRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT PIN 7 POST BOND CRACKED AT WEL DUE TO IMPROPER BONDING. OTHER POOR POST BONDS DUE TO LATERAL MOVEMENT/MISORIENTED

MFEF REPORT NUMBER: 76

MFEF REPORT DATE: 7604

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 9501
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC EPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7534
 SCREEN CLASS: N/R COMPLEXITY: 8 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT OUTPUT
 DEFECT DESCRIPTION: PARTICLE BRIDGE

FAILURE MODE: PACKAGE LEAD FRAME/EXTERNAL LEADS
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: CONTAMINATION (NA & SNI) ATTACKED KOVAR LEADS AND AL LEAD WIRES AT Pkg. FRAME, CAUSING METALLIC BRIDGE. VENDOR DEFECT.

MFEF REPORT NUMBER: 77

MFEF REPORT DATE: 7509

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: SN5410CF
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: METAL/GLASS EPK
 QUANTITY FAILED: 3

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 0
 SCREEN CLASS: N/R COMPLEXITY: 4 B
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: DC 7440 [2 DEVICES], DC 7442 [1 DEVICE], DYE PENETRANT [ZYGL0] CONCENTRATED IN LID SEAL AREA, SOME IN HEATER AREA.

MPEF REPORT NUMBER: 78

MPEF REPORT DATE: 7510

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: NOT RECORDED
 DEVICE TECHNOLOGY: N/R
 PACKAGE: CERAMIC EPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: INPUT VOLT OUT OF TOLERANCE
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/A
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: CURVE TRACER CHECK SHOWED PIN 8 SHORTED TO PIN 4 (NOC).

MPEF REPORT NUMBER: 79

MPEF REPORT DATE: 7507

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: DTL944
 DEVICE TECHNOLOGY: DTL
 PACKAGE: CERAMIC EPK
 QUANTITY FAILED: 6

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7426
 COMPLEXITY: 4 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: IMPURITIES

FAILURE MODE: DIE BULK
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: MECHANICAL STRESS
 ACTIVATING STRESS B: N/R

REMARKS: FAILED X-RAY REVIEW AT INCOMING INSPECTION. EXTRAORDINARY DIE ATTACH MATERIAL ATTACHED TO THE HEADER. SEE MPEF #80.

MPEF REPORT NUMBER: 80

MPEF REPORT DATE: 7507

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: DTL944
 DEVICE TECHNOLOGY: DTL
 PACKAGE: CERAMIC EPK
 QUANTITY FAILED: 1

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7426
 COMPLEXITY: 4 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: VOIDS

FAILURE MODE: PACKAGE DIE ATTACH BOND
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: REFERENCE MPEF #79. IN ADDITION TO EXTRAORDINARY DIE ATTACH PARTICLES, ONE DEVICE SHOWS LACK OF DIE ATTACH UNDER DIE CENTER

MPEF REPORT NUMBER: 81

MPEF REPORT DATE: 7508

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: DM54154F
 DEVICE TECHNOLOGY: LTTI
 PACKAGE: METAL/GLASS EPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7442
 COMPLEXITY: 5 G

FAILURE INDICATOR: IMPROPER LOGIC STATE
 DEFECT DESCRIPTION: CORRODED

FAILURE MODE: WIRE
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: 6 INTERNAL LEADS OPEN NEAR PLG POST BONDS. CORROSION PEROXYCHLOROPHTHYLENE ENTERED THRU FAULTY Kovar-GLASS DURING BOARD WASHING

MPEF REPORT NUMBER: 82

MPEF REPORT DATE: 7508

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: DM54154F
 DEVICE TECHNOLOGY: LTTI
 PACKAGE: METAL/GLASS EPK
 QUANTITY FAILED: 2

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7442
 COMPLEXITY: 5 G

FAILURE INDICATOR: OPEN
 DEFECT DESCRIPTION: CORRODED

FAILURE MODE: WIRE
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: SEE MPEF #81. MULTIPLE OPENS DUE TO CHLORINE CONTAMINANT ENTERING THRU FAULTY KOVAR-GLASS INTERFACE OF PKG SEAL.

MFEF REPORT NUMBER: 83

MFEF REPORT DATE: 7613

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: ARRAY
 PART NUMBER: TID139F
 DEVICE TECHNOLOGY: BIPOLAR (HOC)
 PACKAGE: HERMETIC FPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: DIODE
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 7437
 COMPLEXITY: 0

FAILURE INDICATOR: LEAKAGE
 DEFECT DESCRIPTION: CRACK E

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: HUMIDITY

REMARKS: 7-DIODE ARRAY. CRACK IN GLASS SEAL AT LEAD PIN 1. HI REVERSE LEAKAGE APPARENTLY RESULT OF INTERNAL PACKAGE MOISTURE.

MFEF REPORT NUMBER: 84

MFEF REPORT DATE: 7604

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: DM76L70J/883
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: GLASS/GLASS DIP
 QUANTITY FAILED: 3

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: 883
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 7436
 COMPLEXITY: 8 B

FAILURE INDICATOR: SHORT INPUT
 DEFECT DESCRIPTION: CHANNEL

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS MAY BE B-1. PIN 8 (CLOCK IN) SHORTED TO PIN 9 (CLEAR IN) DUE TO EXT. EOS.

MFEF REPORT NUMBER: 85

MFEF REPORT DATE: 7604

DATA SOURCE: FE-0001 SOURCE: N/R
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: DM76L70J/883
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: GLASS/GLASS DIP
 QUANTITY FAILED: 2

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: 883
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 7436
 COMPLEXITY: 8 B

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: OXIDE FLAWS EXTENDING UNDER METALIZATION PATHS POSSIBLY CAUSING TEMPERATURE SENSITIVE FAILURE.

MFEF REPORT NUMBER: 86

MFEF REPORT DATE: 7602

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: N/R
 PACKAGE: HERMETIC N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: POWER
 PART MANUFACTURER: HARRIS SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: OPEN
 DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: WIRE
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: P5 AL METAL & P1, 11, 14 LEAD WIRES ATTACKED BY CHLORINATED COMPOUND. GLASS IN PKG INTERFACE INDICATES DEFECT. MFG WELD.

MFEF REPORT NUMBER: 87

MFEF REPORT DATE: 7609

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: DM54L02
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: JAN
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 7449
 COMPLEXITY: 4 G

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: DIFFUSION FAULT

FAILURE MODE: JIF DIFFUSION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: FAILED AT -65F. FAILED DUE TO DIFFUSION FAULT BRIDGING B-C JUNCTION OF PIN 9 INPUT TRANSISTOR. MANUFACTURER DEFECT.

MFEF REPORT NUMBER: N/R

MFEF REPORT DATE: 7604

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 8875
DEVICE TECHNOLOGY: TTL
PACKAGE: HERMETIC N/R
QUANTITY FAILED: 3

DATA-TYPE: N/R APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: SIGNETICS DATE CODE: 7522
SCREEN CLASS: N/R COMPLEXITY: 3 G
NUMBER OF PINS: 14
TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT
DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE LEAD FRAME/EXTERNAL LEADS
DEFECT CAUSE: ELECTROLYSIS

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: ADJACENT PIN SHORTS DUE TO PB PRECIP. OUT OF SOLDER-GLASS FRIT. ACID FLUX WAS ELECTROLYTIC, SN REDUCING AGENT FOR PB PREC.

MFEF REPORT NUMBER: 89

MFEF REPORT DATE: 7601

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 58H90W
DEVICE TECHNOLOGY: HTTL
PACKAGE: CERAMIC FPK
QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: SIGNETICS DATE CODE: 0
SCREEN CLASS: N/R COMPLEXITY: 6 G
NUMBER OF PINS: 14
TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT. IN-OP, CATAS
DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: TWO CHANNEL SHORTS AND MELTED METAL PATH ASSOCIATED WITH PIN 7 INPUT CIRCUITRY DUE TO +20V EOS.

MFEF REPORT NUMBER: 90

MFEF REPORT DATE: 7603

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: N74174F
DEVICE TECHNOLOGY: TTL
PACKAGE: CERAMIC DIP
QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
CIRCUIT TYPE: D
PART MANUFACTURER: SIGNETICS DATE CODE: 7403
SCREEN CLASS: N/R COMPLEXITY: 36 G
NUMBER OF PINS: 16
TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI
DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: SURFACE
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: BASE-TO-SUBSTRATE SHORT ON INPUT STAGE STEERING TRANSISTOR OF OUTPUT P10 TWO PROCESS FLAWS, 1 IN INPUT, 1 IN OUTPUT STAGE

MFEF REPORT NUMBER: 91

MFEF REPORT DATE: 7506

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: NOT REPORTED
DEVICE TECHNOLOGY: N/R
PACKAGE: HERMETIC N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
SCREEN CLASS: N/R COMPLEXITY: 1 G
NUMBER OF PINS: 14
TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE
DEFECT DESCRIPTION: CRACKED

FAILURE MODE: METAL MULTI-LEVEL INTERFACE
DEFECT CAUSE: CORROSION

ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE STRESS

REMARKS: ANODIC CORROSION AT NiCr/AL INTERFACE DUE TO POOR GLASSIVATION COVER AT INTERFACE. PROCESS DEFECT DURING DEPOSITION.

MFEF REPORT NUMBER: 92

MFEF REPORT DATE: 7510

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 54175
DEVICE TECHNOLOGY: TTL
PACKAGE: N/R DIP
QUANTITY FAILED: 3

DATA-TYPE: N/R APPLICATION ENV: N/R
CIRCUIT TYPE: D
PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7430
SCREEN CLASS: N/R COMPLEXITY: 24 G
NUMBER OF PINS: 16
TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHING
DEFECT DESCRIPTION: DIFFUSION FAULT

FAILURE MODE: DIE DIFFUSION
DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: DIFFUSION FLAWS FOUND IN VARIOUS LOCATIONS, CAUSING VCC OPERATIONAL SENSITIVITY. MALFUNCTIONED AT ROOM TEMP, 5V VCC.

MFEF REPORT NUMBER: 93

MFEF REPORT DATE: 7510

DATA SOURCE: FE-7001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 54175
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R DIP
 QUANTITY FAILED: 1

DATA-TYPE: DFV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7430
 SCREEN CLASS: N/R COMPLEXITY: 24 G
 NUMBER OF PINS: 6
 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE
 DEFECT DESCRIPTION: SMEAR

FAILURE MODE: METALIZATION
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS METALIZATION SMEAR (SHORT LIKELY) AND GROSS DIFFUSION FLAWS ARE VENDOR DEFECTS.

MFEF REPORT NUMBER: 94

MFEF REPORT DATE: 7510

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: S8890W
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS DATE CODE: 7215
 SCREEN CLASS: N/R COMPLEXITY: 6 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: OPEN INPUT
 DEFECT DESCRIPTION: ZAPPED-EVAPORATED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT PIN 9 METALIZATION BLOWN OPEN. INPUT TRANSISTOR AT PIN 9 CHANNELLED E-T. PIN 9 LEAD WIRE WAS NOT OPENED.

MFEF REPORT NUMBER: 95

MFEF REPORT DATE: 7510

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: S8885W
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS DATE CODE: 7233
 SCREEN CLASS: N/R COMPLEXITY: 4 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: OPEN SUPPLY
 DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: PIN 4 (VCC SUPPLY) LEAD BLOWN OPEN.

MFEF REPORT NUMBER: 96

MFEF REPORT DATE: 7510

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: S8816W
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS DATE CODE: 7233
 SCREEN CLASS: N/R COMPLEXITY: 2 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: OPEN SUPPLY
 DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: PIN 4 (VCC SUPPLY) LEAD BLOWN OPEN. CHANNEL SHORT BETWEEN INPUT PINS 1 & 14. OTHER INPUTS NOT DEGRADED.

MFEF REPORT NUMBER: 111

MFEF REPORT DATE: 7812

DATA SOURCE: FE-0001 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: DM8820AN
 DEVICE TECHNOLOGY: BIPOLAR (NOC)
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: LINE RECEIVER
 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7408
 SCREEN CLASS: N/R COMPLEXITY: 20 T
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: CORRODED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: CORROSION

ACTIVATING STRESS A: HUMIDITY
 ACTIVATING STRESS B: N/R

REMARKS: INTERNAL PKG MOISTURE CAUSED CORRODED OPEN METAL PATH ASSOC. WITH INPUT PIN 13, BETWEEN BOND PAD AND INPUT RESISTOR.

MFEF REPORT NUMBER: 117

MFEF REPORT DATE: 7807

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: SM55451BJG
 DEVICE TECHNOLOGY: BIPOLAR (NOC)
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: DRIVER
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 8
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 10 T

FAILURE INDICATOR: SHORT OUTPUT
 DEFECT DESCRIPTION: PUNCH THROUGH

FAILURE MODE: SURFACE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: DATE CODES 7731/7810. DELID, DEGLASSIVATE, AND METAL REMOVAL REVEALED CHANNEL AND PUNCH-THROUGH SHORTS IN OUTPUT TRANS.

MFEF REPORT NUMBER: 130

MFEF REPORT DATE: 7606

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: 9M7830
 DEVICE TECHNOLOGY: BIPOLAR (NOC)
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: LINE DRIVER
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 7441
 COMPLEXITY: 28 T

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: TROUBLESHOOTING

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: +36V SQ WAVE APPLIED AT P5. +36V WAVE SHUNTS LO OUTPUT TRANS (C-B-E CHANNEL SHORT). MELTS P5, 7 LEADS & C, E, GND METAL.

MFEF REPORT NUMBER: 179

MFEF REPORT DATE: 7611

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: SN54S04
 DEVICE TECHNOLOGY: STTL
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7503
 COMPLEXITY: 6 G

FAILURE INDICATOR: LEAKAGE
 DEFECT DESCRIPTION: DISCOLORED

FAILURE MODE: METAL CONTACT WINDOW
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT TRANSISTOR SHORTED E-B. EMITTER BURNED IN CONTACT WINDOW, METALIZATION ALLOYED INTO DIE. EOS > 10V.

MFEF REPORT NUMBER: 139

MFEF REPORT DATE: 7416

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: MC9312L
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7343
 COMPLEXITY: 17 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: PINHOLE

FAILURE MODE: FIELD OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: FAILURE MOST LIKELY DUE TO AN OXIDE PINHOLE UNDER A METALIZATION STRIPE.

MFEF REPORT NUMBER: 181

MFEF REPORT DATE: 7140

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 9328
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/P N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 7112
 COMPLEXITY: 8 B

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: DIE EPITAXIAL LAYER
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: HIGH G-R BREAKDOWN INDICATES EXCESS BASE REGION/BURIED LAYER SPACING, DUE TO POOR EPI GROWTH PROCESS [> NORMAL THICKNESS]

MFEF REPORT NUMBER: 182

MFEF REPORT DATE: 7147

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: SN23615A
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7119
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: VIS EXAMINATION REVEALED OXIDE DEFECT ALLOWING INPUT PIN 11 TO BECOME SHORTED TO IC GROUND UNDER THE BONDING PAD.

MFEF REPORT NUMBER: 183

MFEF REPORT DATE: 7342

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: SN23611C
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7326
 COMPLEXITY: 4 B

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: N/R

FAILURE MODE: OXIDE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/P
 ACTIVATING STRESS B: N/R

REMARKS: LEAKAGE PATH BETWEEN O4 BASE AND GROUND WOULD NOT ALLOW IC OUTPUT PIN 10 TO SWITCH SERIALLY.

MFEF REPORT NUMBER: 184

MFEF REPORT DATE: 7407

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: SN23611C
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7331
 COMPLEXITY: 4 B

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: N/R

FAILURE MODE: OXIDE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: O4 COLLECTOR HAS 1.5V BREAKDOWN TO CHIP SUBSTRATE. NO EOS INDICATIONS. PREVENTS OUTPUT PIN 10 FROM SWITCHING SERIALLY.

MFEF REPORT NUMBER: 185

MFEF REPORT DATE: 7128

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: AN23611A
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7110
 COMPLEXITY: 4 B

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: Q3 TRANSISTOR OPEN AT BASE DUE TO A MASKING DEFECT WHICH DID NOT ALLOW CONTACT.

MFEF REPORT NUMBER: 186

MFEF REPORT DATE: 7323

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 9328
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7324
 COMPLEXITY: 8 B

FAILURE INDICATOR: NON-FUNCTIONAL, SCATCH
 DEFECT DESCRIPTION: SCATCH

FAILURE MODE: SURFACE
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: INPUT PIN 11 NON-FUNCTIONAL. SCATCH ACROSS DIE SURFACE OCCURED PRIOR TO METALIZATION APPLICATION.

MFEF REPORT NUMBER: 187

MFEF REPORT DATE: 7411

DATA SOURCE: - 003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: MC9312L
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7343
 COMPLEXITY: 17 G

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: PINHOLE

FAILURE MODE: FIELD OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: PINHOLES IN OXIDE PENFATH METALIZATION RUN CONNECTING P11 OUTPUT TO EACH ONE OF FOUR INPUT TRANSISTOR EMITTERS - SHORTS.

MFEF REPORT NUMBER: 189

MFEF REPORT DATE: 7202

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 9316
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7144
 COMPLEXITY: 4 B

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: CRACKED

FAILURE MODE: DIE BULK
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: PFCAP AND OPTICAL EXAMINATION REVEALED A CRACKED DIE.

MFEF REPORT NUMBER: 189

MFEF REPORT DATE: 7508

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: SN5400J
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7248
 COMPLEXITY: 4 G

FAILURE INDICATOR: SHORT INPUT
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: METAL BOND PAD
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: INPUT PIN 12 SHORTED TO SUBSTRATE DUE TO OXIDE DEFECT UNDER PIN 12 BOND PAD.

MFEF REPORT NUMBER: 190

MFEF REPORT DATE: 7507

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 54S194
 DEVICE TECHNOLOGY: STTL
 PACKAGE: N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7508
 COMPLEXITY: 4 B

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: METALIZATION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: Q1,Q2,Q3 OUTPUTS STUCK HI AT ELEVATED TEMPERATURES [+75C]. RESISTIVE SHORT [CLOCK-TO-VCC] REMOVED WITH METALIZATION.

MFEF REPORT NUMBER: 191

MFEF REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: SN54S151J
 DEVICE TECHNOLOGY: STTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7508
 COMPLEXITY: 17 G

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: METALIZATION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: PFCAPPING REVEALED SHORTED VCC-TO-GND [SUBSTRATE]. SHORT CAUSED BY FLAWS IN OXIDE BENEATH METAL. AREA BADLY BURNED.

MFEF REPORT NUMBER: 192

MFEF REPORT DATE: 7502

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: SN24559C
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/P N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: LINE RECEIVER
 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7303
 SCREEN CLASS: N/P COMPLEXITY: 0
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

FAILURE INDICATOR: INTERMITTENT OPEN
 DEFECT DESCRIPTION: N/R

FAILURE MODE: WIREBOND
 DEFECT CAUSE: INTERMETALLIC FORMATION

ACTIVATING STRESS A: N/P
 ACTIVATING STRESS B: N/R

REMARKS: PINS 3,8 INTERMITTENTLY OPEN DUE TO A COLD-ALUMINUM INTERMETALLIC PROBLEM CAUSED BY AN IMPROPER BONDING PROCEDURE.

MFEF REPORT NUMBER: 193

MFEF REPORT DATE: 7141

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: SN23615A
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/P
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7113
 SCREEN CLASS: N/R COMPLEXITY: 0
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: FAULT (MOC)

FAILURE MODE: DIE BULK
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: Q2 TRANSISTOR EXHIBITS UNIT GAIN. E-B LEAKAGE EXCESSIVE. ANGLE LAPPING AND VISUAL REVEALED BULK DEFECTS IN E-R REGION.

MFEF REPORT NUMBER: 194

MFEF REPORT DATE: 7140

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: SN24559C
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: LINE RECEIVER
 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7136
 SCREEN CLASS: N/R COMPLEXITY: 0
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: METALIZATION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/P
 ACTIVATING STRESS B: N/R

REMARKS: DELIDDING, PROBING AND OPTICAL EXAMINATION REVEALED OPEN METALIZATION BETWEEN BASE OF Q3 TRANSISTOR.

MFEF REPORT NUMBER: 195

MFEF REPORT DATE: 7347

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: SN24559C
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: LINE RECEIVER
 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7339
 SCREEN CLASS: N/P COMPLEXITY: 0
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: PINHOLE

FAILURE MODE: FIELD OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/P
 ACTIVATING STRESS B: N/R

REMARKS: PINHOLE IN THERMAL OXIDE ALLOWED GROUND METALIZATION TO SHORT TO THE RESISTOR ISOLATION REGION.

MFEF REPORT NUMBER: 196

MFEF REPORT DATE: 7347

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: SN24559C
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/P N/P
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: LINE RECEIVER
 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7324
 SCREEN CLASS: N/P COMPLEXITY: 0
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MISSING

FAILURE MODE: WIREBOND
 DEFECT CAUSE: INTERMETALLIC FORMATION

ACTIVATING STRESS A: N/P
 ACTIVATING STRESS B: N/R

REMARKS: BOND MISSING FROM INPUT PIN 2 BOND PAD. BOND DESTROYED DUE TO IMPROPER COLD-ALUMINUM INTERMETALLIC FORMATION.

MEFF REPORT NUMBER: 198

MEFF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 54106
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: N/P N/P
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 7511
 COMPLEXITY: 39 G

FAILURE INDICATOR: SHORT
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: OXIDE
 DEFECT CAUSE: TROUBLESHOOTING

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: PIN 6 SHORTED UNDER THE OXIDE TO THE GROUND METALIZATION. A VOLTAGE IN EXCESS OF 15V REQUIRED TO INDUCE THIS FAULT.

MEFF REPORT NUMBER: 199

MEFF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5420
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/P N/P
 QUANTITY FAILED: 3

DATA-TYPE: N/R
 CIRCUIT TYPE: N/P
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 7440
 COMPLEXITY: 2 G

FAILURE INDICATOR: SHORT INPUT
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE AND CURRENT STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: EXTENSIVE METAL MELT AT INPUT TRANSISTORS. METAL MELTED INTO DIE. UNDER OXIDE SHORTS. DAMAGE DUE TO >150MA, >15V EOS.

MEFF REPORT NUMBER: 200

MEFF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: CATF
 PART NUMBER: 7400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/P N/P
 QUANTITY FAILED: 2

DATA-TYPE: N/R
 CIRCUIT TYPE: N/P
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/P
 DATE CODE: 7438
 COMPLEXITY: 4 G

FAILURE INDICATOR: NON-FUNCT. IN-OP. CATAS
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: MASSIVE DAMAGE I.E. MELTED METALIZATION, MELTED LEADS, AND SHORTED TRANSISTORS, DUE TO EOS IN EXCESS OF 15V.

MEFF REPORT NUMBER: 201

MEFF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: CATF
 PART NUMBER: 7400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/P N/P
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/P
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 7438
 COMPLEXITY: 4 G

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: PIN 6 OUTPUT TRANSISTOR SHORTED TO GROUND UNDER THE OXIDE. VOLTAGE IN EXCESS OF 15V REQUIRED TO CAUSE THIS DAMAGE.

MEFF REPORT NUMBER: 202

MEFF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/P N/P
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 7348
 COMPLEXITY: 4 G

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: CURRENT STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: PIN 1 WIREBOND OVERHEATED 100% INTO DIE. PIN 14 HAD MELTED LEAD. CURRENT IN EXCESS OF 500MA CAUSED DAMAGE.

MFEF REPORT NUMBER: 203

MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 985A
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 2

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: 0
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: CURRENT STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: DC 7434, 7435. MASSIVE DAMAGE IN MELTED METALIZATION, SHORTED TRANSISTORS. DAMAGE CAUSED BY CURRENT IN EXCESS OF 500MA.

MFEF REPORT NUMBER: 204

MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 985A
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: 0
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 7435
 COMPLEXITY: 6 G

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: CURRENT STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: LEADS TO PINS 7,9,10 MELTED. METALIZATION MELTED BETWEEN PAD 0 AND ASSOCIATED TRANSISTOR COLLECTOR. EOS > 500MA.

MFEF REPORT NUMBER: 205

MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 985A
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: 0
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 7414
 COMPLEXITY: 6 G

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: CURRENT STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: MELTED METAL AT PAD 0 AND ASSOC. TRANS. COLLECTOR. PIN 4,6-11 LEADS MELTED. P0 TRANS. E-A METAL MELTED. EOS > 500MA.

MFEF REPORT NUMBER: 206

MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7404
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7446
 COMPLEXITY: 6 G

FAILURE INDICATOR: SHORT INPUT
 DEFECT DESCRIPTION: SHORT (KOC)

FAILURE MODE: OXIDE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: D1 DIODE SHORTED UNDER OXIDE FROM CATHODE TO ANODE. VOLTAGE EOS IN EXCESS OF 10V REQUIRED TO SHORT DIODE.

MFEF REPORT NUMBER: 207

MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 7419
 COMPLEXITY: 4 G

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: DELIDDING REVEALED MELTED OFF METALIZATION. OUTPUT TRANSISTOR SHORTED COLLECTOR-TO-EMITTER.

WFF REPORT NUMBER: 208

WFF REPORT DATE: 7603

DATA SOURCE: FE-003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/P
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7419
 COMPLEXITY: 4 C

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: SOLDERING REVEALED MELTED DIE METALIZATION. OUTPUT TRANSISTOR SHORTED COLLECTOR-TO-EMITTER.

WFF REPORT NUMBER: 209

WFF REPORT DATE: 7603

DATA SOURCE: FE-003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7419
 COMPLEXITY: 4 C

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: SOLDERING REVEALED EMITTER-TO-BASE SHORT ON INPUT TRANSISTOR.

WFF REPORT NUMBER: 210

WFF REPORT DATE: 7603

DATA SOURCE: FE-003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/P
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7422
 COMPLEXITY: 4 C

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: INPUT CLAMP DIODE SHORTED TO CHIP SUBSTRATE. EMITTER-BASE SHORT ON INPUT TRANSISTOR. EOS > -4V IS LIKELY FAILURE CAUSE.

WFF REPORT NUMBER: 211

WFF REPORT DATE: 7605

DATA SOURCE: FE-003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 44104
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: HERMETIC EPF
 QUANTITY FAILED: 1

DATA-TYPE: N/P
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NOT REPORTED
 SCREEN CLASS: JB
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7429
 COMPLEXITY: 6 C

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: VARIOUS INPUT LEADS ARE MELTED. DIE IS BLACKENED OVER ITS ENTIRETY. FAILURE DUE TO EOS IN EXCESS OF 15V.

WFF REPORT NUMBER: 212

WFF REPORT DATE: 7601

DATA SOURCE: FE-003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 944
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/P
 CIRCUIT TYPE: POWER
 PART MANUFACTURER: 11T SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7106
 COMPLEXITY: 2 C

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: ELECTRICAL OVERSTRESS ON INPUT DIODES. FAILED SYSTEM-LEVEL TEST AT ROOM TEMPERATURE.

MFEF REPORT NUMBER: 213

MFEF REPORT DATE: 7404

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: SN74S194
 DEVICE TECHNOLOGY: STTL
 PACKAGE: N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 4 B

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/P
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: FAILURE DUE TO TIMING PROBLEM IN SHIFT REGISTER FLIP-FLOPS OF STAGES B AND C. FAILED SYSTEM TEST AT ROOM TEMPERATURE.

MFEF REPORT NUMBER: 214

MFEF REPORT DATE: 7412

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: PMOS
 PACKAGE: N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 7325
 COMPLEXITY: C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: PARTICLE BRIDGE

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: SHORTS BETWEEN BOND WIPES AND EDGE OF CHIP WHEN GOLD PARTICLES SPANNED THE GAP.

MFEF REPORT NUMBER: 215

MFEF REPORT DATE: 7501

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: CD4001AK
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC
 QUANTITY FAILED: 6

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: PUNCH THROUGH

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: N/P

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: SHORTED INPUTS THRU OXIDE TO FET CHANNEL. GATE OXIDE PUNCH-THROUGH AT 52V.

MFEF REPORT NUMBER: 216

MFEF REPORT DATE: 7501

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: CD4001AK
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: PARTICLE BRIDGE

FAILURE MODE: SURFACE
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: SLUG OF COPPER ATTACHED TO CHIP BETWEEN THE GATE AND DRAIN METALIZATION.

MFEF REPORT NUMBER: 217

MFEF REPORT DATE: 7502

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 014
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R
 QUANTITY FAILED: 0

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/P
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7439
 COMPLEXITY: 6 C

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: WIREBOND DIE PAD HEEL
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: SEVERAL DEVICES INVOLVED. POOR BOND POSITIONING AND DAMAGE TO HEEL OF BOND.

MFEF REPORT NUMBER 218

MFEF REPORT DATE: 7502

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 930
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 0

DATA-TYPE: N/R EVALUATION
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7434
 COMPLEXITY: 2 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: WIREBOND DIE PAD HEEL
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: SEVERAL DEVICES INVOLVED. POOR BOND POSITIONING AND DAMAGE TO HEEL OF BOND.

MFEF REPORT NUMBER: 220

MFEF REPORT DATE: 7506

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 54L192
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7231
 COMPLEXITY: 4 B

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE DIE ATTACH BOND
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: DEFECTIVE DIE BOND.

MFEF REPORT NUMBER: 221

MFEF REPORT DATE: 7506

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 54L04
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7411
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OXIDE DEFECT BENEATH BONDING PAD.

MFEF REPORT NUMBER: 223

MFEF REPORT DATE: 7506

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5403
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7411
 COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT PIN 11 SHORTED TO GND.

MFEF REPORT NUMBER: 224

MFEF REPORT DATE: 7507

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 54S151
 DEVICE TECHNOLOGY: STTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: LIFE
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7449
 COMPLEXITY: 17 G

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: MELTED BONDING WIRE.

MFEF REPORT NUMBER: 226

MFEF REPORT DATE: 7508

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54G0
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: JAN
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7504
 COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT SHORTED TO GROUND.

MFEF REPORT NUMBER: 227

MFEF REPORT DATE: 7508

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: JAN
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7504
 COMPLEXITY: 4 G

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: DIE CRYSTAL
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/P

REMARKS: HIGH TRANSISTOR GAINS DUE TO MANUFACTURER DOPING PROCESS DEFECTS.

MFEF REPORT NUMBER: 228

MFEF REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 5404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: JAN
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 734P
 COMPLEXITY: 6 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: OXIDE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: HIGH INPUT LEAKAGE DUE TO MASKING DEFECT.

MFEF REPORT NUMBER: 229

MFEF REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 936
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/P
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7309
 COMPLEXITY: 6 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: PIN 9 MELTED OPEN ON CHIP DUE TO EOS.

MFEF REPORT NUMBER: 230

MFEF REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 946
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/P
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7304
 COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: WIREBOND
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OPEN VCC WIREBOND DUE TO REACTIVE CHLORINE CONTAMINANT.

MFEF REPORT NUMBER: 231

MFEF REPORT DATE: 7509

DATA SOURCE: FL-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATT
 PART NUMBER: 946
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/P
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7304
 COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: WIREBOND
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OPEN VCC WIREBOND DUE TO REACTIVE CHLORINE CONTAMINANT.

MFEF REPORT NUMBER: 232

MFEF REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 946
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7302
 COMPLEXITY: 4 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUTS SHORTED TOGETHER.

MFEF REPORT NUMBER: 233

MFEF REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 957
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7303
 COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: DIE DIFFUSION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: SPURIOUS DIFFUSION DUE TO POOR PHOTORESIST COVERAGE.

MFEF REPORT NUMBER: 234

MFEF REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 936
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7309
 COMPLEXITY: 6 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: WIREBOND
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OPEN BONDS DUE TO REACTIVE CHLORINE CONTAMINANT.

MFEF REPORT NUMBER: 235

MFEF REPORT DATE: 7509

DATA SOURCE: FF-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 54S153
 DEVICE TECHNOLOGY: STTL
 PACKAGE: N/P N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7432
 COMPLEXITY: 16 G

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: METALIZATION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OPEN METALIZATION CAUSED BY MASKING DEFECT.

MFEF REPORT NUMBER: 236

MFEF REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 54S153
 DEVICE TECHNOLOGY: STTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7432
 COMPLEXITY: 16 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: PINHOLE

FAILURE MODE: OXIDF
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: B-SELECT INPUT TRANSISTOR HAS HIGH G-E LFAKAGF. PINHOLE IN OXIDF IS PROBABLY DEFECT.

MFEF REPORT NUMBER: 237

MFEF REPORT DATE: 7510

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 4049
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: N/R N/P
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SOLID STATE SCIENTIFIC
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7507
 COMPLEXITY: 6 G

FAILURE INDICATOR: INPUT LEAKAGE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: HIGH INPUT LEAKAGE.

MFEF REPORT NUMBER: 238

MFEF REPORT DATE: 7510

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4011
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SOLID STATE SCIENTIFIC
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7511
 COMPLEXITY: 4 G

FAILURE INDICATOR: INPUT LEAKAGE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT LEAKAGE.

MFEF REPORT NUMBER: 239

MFEF REPORT DATE: 7510

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 4049A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SOLID STATE SCIENTIFIC
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7507
 COMPLEXITY: 6 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 240

MFEF REPORT DATE: 7511

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54L30
 DEVICE TECHNOLOGY: LITL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: LIFE
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 1 G

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: METALIZATION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OXIDE DEFECT CAUSED METALIZATION SHORT TO BRIDGE.

MFEF REPORT NUMBER: 241

MFEF REPORT DATE: 7511

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 54109
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7435
 COMPLEXITY: 15 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: DIE DIFFUSION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: SHORTED UNDERPASS DIFFUSION.

MFEF REPORT NUMBER: 242

MFEF REPORT DATE: 7511

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 54109
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7438
 COMPLEXITY: 16 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: MISALIGNMENT/MISPLACED

FAILURE MODE: DIE DIFFUSION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: DIFFUSION MISPLACED.

MFEF REPORT NUMBER: 243

MFEF REPORT DATE: 7511

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 4024
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: SOLID STATE SCIENTIFIC
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7508
 COMPLEXITY: 61 G

FAILURE INDICATOR: OUTPUT LEAKAGE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT LEAKAGE CAUSED BY STATIC ZAP.

MFEF REPORT NUMBER: 244

MFEF REPORT DATE: 7512

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC PIP
 QUANTITY FAILED: 2

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: JR
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7445
 COMPLEXITY: 0

FAILURE INDICATOR: N/P
 DEFECT DESCRIPTION: N/P

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: OVER 7.7V APPLIED TO INPUT PIN 15 ON 2 DEVICES.

MFEF REPORT NUMBER: 245

MFEF REPORT DATE: 7512

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 5476
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: JAN
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7344
 COMPLEXITY: 16 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT SHORTED TO VCC.

MFEF REPORT NUMBER: 246

MFEF REPORT DATE: 7512

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: D111
 DEVICE TECHNOLOGY: BIPOLAR/MOSFET
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: A/D CONVERTER
 PART MANUFACTURER: SILICONIX
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7507
 COMPLEXITY: 0

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: N/R

FAILURE MODE: PACKAGE LEAD FRAM/EXTERNAL LEADS
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: HUMIDITY
 ACTIVATING STRESS B: N/R

REMARKS: HUMIDITY TEST RESULTS REVEALED THAT EXTERNAL PACKAGE LEADS WERE NOT PROPERLY GOLD-PLATED.

MFEF REPORT NUMBER: 247

MFEF REPORT DATE: 7512

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: D111
 DEVICE TECHNOLOGY: BIPOLAR/MOSFET
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: A/D CONVERTER
 PART MANUFACTURER: SILICONIX
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7200
 COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MISSING

FAILURE MODE: DIE
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: PARASITIC SCR ACTION MOST LIKELY RESULTING FROM LACK OF BURIED LAYER UNDER RESISTORS.

MFEF REPORT NUMBER: 248

MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: D111
 DEVICE TECHNOLOGY: BIPOLAR/MOSFET
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: A/D CONVERTER
 PART MANUFACTURER: SILICONIX
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: WIREBOND
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OPEN BOND.

MFEF REPORT NUMBER: 249

MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: D111
 DEVICE TECHNOLOGY: BIPOLAR/MOSFET
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: A/D CONVERTER
 PART MANUFACTURER: SILICONIX
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: EXTRANEOUS WIRE

FAILURE MODE: WIRE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: EXCESSIVE BONDING WIRE LENGTH ALLOWED WIRES TO TOUCH.

MFEF REPORT NUMBER: 250

MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 9328D
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/P
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7528
 COMPLEXITY: 16 B

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: CRACKED

FAILURE MODE: PACKAGE LID
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: GROSS LEAK FAILURE DUE TO CRACK IN CERAMIC LID.

MFEF REPORT NUMBER: 251

MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: N/R N/R
 QUANTITY FAILED: 2

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SOLID STATE SCIENTIFIC
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7508
 COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
 ACTIVATING STRESS B: N/R

REMARKS: 2 DEVICES FAILED ISS MEASUREMENTS DUE TO STATIC DISCHARGE.

MFEF REPORT NUMBER: 252

MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: 54S140
 DEVICE TECHNOLOGY: STTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: BURN-IN
 CIRCUIT TYPE: LINE DRIVER
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7450
 COMPLEXITY: 2 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: CURRENT STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: PROBABLY DUE TO APPLICATION OF UNLIMITED SOURCE OF CURRENT DURING ELECTRICAL TEST OR BURN-IN.

MFEF REPORT NUMBER: 254

MFEF REPORT DATE: 7602

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 9316D
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7408
 COMPLEXITY: 4 B

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: DIFFUSION FAULT

FAILURE MODE: DIE DIFFUSION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: BASE AND ISOLATION DIFFUSION DEFECTS.

MFEF REPORT NUMBER: 255

MFEF REPORT DATE: 7602

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54L10J
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: CLASS/CLASS DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7424
 COMPLEXITY: 3 G

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: FAILED TRIP. PULL-UP RESISTORS TOO HIGH A VALUE. FAILED AT TEMPERATURE BETWEEN +100 TO +125C.

MFEF REPORT NUMBER: 256

MFEF REPORT DATE: 7602

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54L10J
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: CLASS/CLASS DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7424
 COMPLEXITY: 3 G

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: FAILED TRIP. PULL-UP RESISTORS TOO HIGH A VALUE. FAILED AT ROOM TEMPERATURE.

MFEF REPORT NUMBER: 257

MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 54904W
 DEVICE TECHNOLOGY: STTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7503
 SCREEN CLASS: N/R COMPLEXITY: 6 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE LEAD FRAME/EXTERNAL LEADS
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: FAILED SOLDERABILITY TEST.

MFEF REPORT NUMBER: 258

MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: 7832W
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC FPK
 QUANTITY FAILED: 1

DATA-TYPE: BURN-IN APPLICATION ENV: N/R
 CIRCUIT TYPE: LINE DRIVER
 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7510
 SCREEN CLASS: N/R COMPLEXITY: 60 T
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/P

REMARKS: INPUT ELECTRICALLY OVERSTRESSED FOLLOWING BURN-IN.

MFEF REPORT NUMBER: 259

MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 9316
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7411
 SCREEN CLASS: N/R COMPLEXITY: 4 B
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: DIE
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: INCORRECT DIP FOUND WITHIN THIS PACKAGE.

MFEF REPORT NUMBER: 260

MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 9316
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7411
 SCREEN CLASS: N/R COMPLEXITY: 4 B
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAP OUT OF TOLERANCE
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: OXIDE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/P

REMARKS:

MFEF REPORT NUMBER: 261

MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: 9614
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/P
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: LINE DRIVER
 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7444
 SCREEN CLASS: N/R COMPLEXITY: 6 G
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: DIE DIFFUSION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: RESISTOR DIFFUSION DEFECT.

MFEF REPORT NUMBER: 262

MFEF REPORT DATE: 7603

DATA SOURCE: FF-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: PAC100
 DEVICE TECHNOLOGY: BIPOLAR (NOC)
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: D/A CONVERTER
 PART MANUFACTURER: PRECISION MONOLITHICS DATE CODE: 7402
 SCREEN CLASS: N/R COMPLEXITY: 10 B
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

FAILURE INDICATOR: DFGRADED
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: INPUT SCHOTTKY CLAMP LEAKY DUE TO IMPROPER PROCESSING.

MFEF REPORT NUMBER: 268

MFEF REPORT DATE: 7604

DATA SOURCE: FF-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 54L04
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: N/P
 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7508
 SCREEN CLASS: N/R COMPLEXITY: 6 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: PINHOLE

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: PINHOLE IN OXIDE WIPED OFF PAD 12.

MFEF REPORT NUMBER: 269

MFEF REPORT DATE: 7604

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 54L04
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: N/P N/P
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7508
 SCREEN CLASS: N/R COMPLEXITY: 6 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: Q2 SHORTED F-R UNDER OVI05.

MFEF REPORT NUMBER: 270

MFEF REPORT DATE: 7604

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 54L74
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: N/P N/P
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: D
 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7507
 SCREEN CLASS: N/R COMPLEXITY: 12 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALLIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUTS SHORTED TOGETHER. ONE INPUT PIN MELTED OFF.

MFEF REPORT NUMBER: 271

MFEF REPORT DATE: 7604

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 944
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/P N/P
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON DATE CODE: 7305
 SCREEN CLASS: N/R COMPLEXITY: 4 G
 NUMBER OF PINS: 12
 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: PARTICLE BRIDGE

FAILURE MODE: PACKAGE LEAD FRAME/EXTERNAL LEADS
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: SOLDER BRIDGING BETWEEN EXTERNAL LEAD AND PACKAGE. MOST LIKELY DURING REMOVAL FROM CIRCUIT BOARD.

MFEF REPORT NUMBER: 273 MFEF REPORT DATE: 7604

DATA SOURCE: FE-0003	SOURCE: EQUIPMENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: NSS
DEVICE FUNCTION: FLIP-FLOP		CIRCUIT TYPE: JK	
PART NUMBER: RPS0		PART MANUFACTURER: RAYTHEON	DATE CODE: 7304
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: N/R	COMPLEXITY: 8 G
PACKAGE: N/R	N/R	NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: N/R
 EFFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT 11 MELTED OPEN.

MFEF REPORT NUMBER: 274 MFEF REPORT DATE: 7604

DATA SOURCE: FE-0003	SOURCE: EQUIPMENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE		CIRCUIT TYPE: MONOSTABLE	
PART NUMBER: 95LC2		PART MANUFACTURER: FAIRCHILD SEMI	DATE CODE: 7442
DEVICE TECHNOLOGY: LTTL		SCREEN CLASS: N/R	COMPLEXITY: 18 G
PACKAGE: N/R	N/R	NUMBER OF PINS: 16	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: BONDING WIRES AT INPUT PINS 11,12,13 ARE MELTED.

MFEF REPORT NUMBER: 275 MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003	SOURCE: COMPONENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: N/R
DEVICE FUNCTION: GENERATOR		CIRCUIT TYPE: N/R	
PART NUMBER: P25620		PART MANUFACTURER: ADVANCED MICRO DEVICES	DATE CODE: 7521
DEVICE TECHNOLOGY: STTL		SCREEN CLASS: N/R	COMPLEXITY: 15 G
PACKAGE: N/R	N/R	NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: PINHOLE

FAILURE MODE: FIELD OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: PINHOLE IN OXIDE UNDER METALIZATION RUN.

MFEF REPORT NUMBER: 277 MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003	SOURCE: EQUIPMENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 946		PART MANUFACTURER: ITT SEMICONDUCTOR	DATE CODE: 7105
DEVICE TECHNOLOGY: DTL		SCREEN CLASS: N/R	COMPLEXITY: 4 G
PACKAGE: N/R	N/R	NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: GATE DESTROYED WHILE ISOLATING FAILURE CAUSE.

MFEF REPORT NUMBER: 278 MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003	SOURCE: EQUIPMENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP		CIRCUIT TYPE: T	
PART NUMBER: 945		PART MANUFACTURER: ITT SEMICONDUCTOR	DATE CODE: 7105
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: N/R	COMPLEXITY: 8 G
PACKAGE: N/R	N/R	NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: CAUSE OF DEGRADATION ON LEAKY INPUT DIODE COULD NOT BE DETERMINED.

MFEF REPORT NUMBER: 279

MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 944
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: POWER
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7106
 COMPLEXITY: 2 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: CAUSE OF LEAKAGE ON INPUT DIODE COULD NOT BE DETERMINED.

MFEF REPORT NUMBER: 280

MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: COMPARTOR
 PART NUMBER: 5485
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGMETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7422
 COMPLEXITY: 4 B

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/P

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/P

REMARKS:

MFEF REPORT NUMBER: 281

MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 944
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: POWER
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7107
 COMPLEXITY: 2 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: N/R
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/P
 ACTIVATING STRESS B: N/P

REMARKS:

MFEF REPORT NUMBER: 282

MFEF REPORT DATE: 6054

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: TIMER
 PART NUMBER: CD4001A 2
 DEVICE TECHNOLOGY: 30
 PACKAGE: N/R N/P
 QUANTITY FAILED: 10

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: N/R
 NUMBER OF PINS: 147
 TIME TO DETECTION: 0

DATE CODE: 4120
 COMPLEXITY: 47

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: N/P

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: RADIATION-NUCLEAR

REMARKS:

MFEF REPORT NUMBER: 283

MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 5404J
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/P APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7416
 COMPLEXITY: 6 G

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/P
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 284

MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 54153
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 5
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7418
 COMPLEXITY: 16 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUTS AND OUTPUT MELTED.

MFEF REPORT NUMBER: 285

MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 936
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7309
 COMPLEXITY: 6 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT TRANSISTOR SHORTED.

MFEF REPORT NUMBER: 286

MFEF REPORT DATE: 7606

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 946
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7305
 COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT SHORTED.

MFEF REPORT NUMBER: 287

MFEF REPORT DATE: 7606

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 54104
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7411
 COMPLEXITY: 6 G

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: WIRE
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: MISPLACED BONDING WIRE CAUSED SHORT TO ISOLATION DIFFUSION.

MFEF REPORT NUMBER: 288

MFEF REPORT DATE: 7606

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 936
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7309
 COMPLEXITY: 6 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
 ACTIVATING STRESS B: N/R

REMARKS: STATIC DISCHARGE SHORTED BASE-EMITTER JUNCTIONS.

MFEF REPORT NUMBER: 295

MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54S20
 DEVICE TECHNOLOGY: STTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7550
 COMPLEXITY: 2 C

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 296

MFEF REPORT DATE: 7608

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 2
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7304
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 297

MFEF REPORT DATE: 7608

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 54164
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 3

DATA-TYPE: BURN-IN
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGMETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: C
 COMPLEXITY: 8 B

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: TROUBLESHOOTING

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: PLUGGED INTO SOCKET BACKWARDS DURING BURN-IN TESTING.

MFEF REPORT NUMBER: 298

MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: MC2101
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7303
 COMPLEXITY: 4 C

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUTS OVERSTRESSED.

MFEF REPORT NUMBER: 299

MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GENERATOR
 PART NUMBER: 54S182
 DEVICE TECHNOLOGY: STTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 2

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7603
 COMPLEXITY: 19 C

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT OVERSTRESSED DURING TESTING.

MFEF REPORT NUMBER: 300

MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5403
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7450
 COMPLEXITY: 4 C

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: TWO OUTPUT TRANSISTORS EXHIBITED COLLECTOR-EMITTER SHORTS.

MFEF REPORT NUMBER: 301

MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5410
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OVERSTRESSED. GROUND WIRES MELTED.

MFEF REPORT NUMBER: 302

MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: MC2101
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7303
 COMPLEXITY: 4 C

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT TRANSISTOR SHORTED.

MFEF REPORT NUMBER: 303

MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: SPIFT REGISTER
 PART NUMBER: 54195
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7527
 COMPLEXITY: 4 B

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT TRANSISTOR SHORTED COLLECTOR-TO-EMITTER.

MFEF REPORT NUMBER: 304

MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54520
 DEVICE TECHNOLOGY: STTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7447
 COMPLEXITY: 2 C

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: INPUT LATCH-BACK AT +125 DEGREES C.

MFEF REPORT NUMBER: 306

MFEF REPORT DATE: 7610

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54L20
 DEVICE TECHNOLOGY: LITL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7604
 COMPLEXITY: 2 G

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OHMIC CONTACT MASK MISALIGNMENT WHICH POSITIONED EMITTER CONTACT AT EDGE OF DIFFUSION.

MFEF REPORT NUMBER: 307

MFEF REPORT DATE: 7610

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 948
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: N/A
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7304
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: OXIDE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: MASKING DEFECT IN BURIED LAYER.

MFEF REPORT NUMBER: 308

MFEF REPORT DATE: 7611

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54132
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: LIFE
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7414
 COMPLEXITY: 4 G

FAILURE INDICATOR: DEGRADFD
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT PROTECTION DIODE SHORTED COLLECTOR-TO-EMITTER.

MFEF REPORT NUMBER: 311

MFEF REPORT DATE: 7612

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 944
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: POWER
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7101
 COMPLEXITY: 2 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: ELECTRICAL OVERSTRESS APPLIED TO INPUT SHORTED INPUT DIODE.

MFEF REPORT NUMBER: 312

MFEF REPORT DATE: 7612

DATA SOURCE: FE-0001 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 957
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7302
 COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: ELECTRICAL OVERSTRESS TO OUTPUT TRANSISTOR SHORTED COLLECTOR-TO-EMITTER.

MFEF REPORT NUMBER: 313

MFEF REPORT DATE: 7608

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 936
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHFON
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7309
 COMPLEXITY: 6 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: DISCOLORED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: METALIZATION RUN TO INPUT DIODE WAS BURNED OPEN.

MFEF REPORT NUMBER: 314

MFEF REPORT DATE: 7608

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 936
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7309
 COMPLEXITY: 6 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: WIRE
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: FAILURE MODE NOT CONFIRMED, BUT BONDING WIRES WERE FOUND CLOSE TO THE EDGE OF THE CHIP.

MFEF REPORT NUMBER: 315

MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 936
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7307
 COMPLEXITY: 1 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT TRANSISTOR SHORTED BASE-TO-EMITTER.

MFEF REPORT NUMBER: 319

MFEF REPORT DATE: 7600

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 5495
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 B

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: HIGH VOLTAGE DUE TO VOLTAGE DROP ON GROUND LINE.

MFEF REPORT NUMBER: 320

MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 936
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 6944
 COMPLEXITY: 2 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: ELECTRICAL OVERSTRESS APPLIED TO INPUT SHORTED INPUT DIODE.

MFEF REPORT NUMBER 321

MFEF REPORT DATE: 7701

DATA SOURCE: FF-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 946
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7051
 COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: ELECTRICAL OVERSTRESS SHORTED INPUT DIODES AND OUTPUT TRANSISTOR.

MFEF REPORT NUMBER: 322

MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 944
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: POWER
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7005
 COMPLEXITY: 2 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: ELECTRICAL OVERSTRESS TO INPUT DIODES.

MFEF REPORT NUMBER: 323

MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 944
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 3

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: POWER
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 6903
 COMPLEXITY: 2 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: ELECTRICAL OVERSTRESS ON INPUT DIODES. 2-FAIRCHILD, 1-ITT DEVICE.

MFEF REPORT NUMBER: 324

MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 944
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 18

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: POWER
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: EOS TO INPUT DIODES. 1 DEVICE HAD TRANSISTOR SHORTS INPUT-TO-GND. DC 6838, 7006, 7048, 7049, 7052, 7101, 7105, 7106.

MFEF REPORT NUMBER: 325

MFEF REPORT DATE: 7701

DATA SOURCE: FF-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 944
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 5

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: POWER
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: EOS AT INPUT DIODES. 3 DEVICES HAD TRANSISTOR SHORTS INPUT-TO-GND. DC 7041, 7048, 7049, 7106

MFEF REPORT NUMBER: 327

MFEF REPORT DATE: 7702

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 9316
DEVICE TECHNOLOGY: TTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: FAIRCHILD SEMI
SCREEN CLASS: N/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7411
COMPLEXITY: 57 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: ELECTRICAL OVERSTRESS APPLIED AT INPUT PIN 5.

MFEF REPORT NUMBER: 330

MFEF REPORT DATE: 7502

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 54S153
DEVICE TECHNOLOGY: STTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: FAIRCHILD SEMI
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7431
COMPLEXITY: 16 G

FAILURE INDICATOR: DEGRADED
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: LOW BREAKDOWN ON OUTPUT TRANSISTOR.

MFEF REPORT NUMBER: 331

MFEF REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 54S153
DEVICE TECHNOLOGY: STTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: TEXAS INSTRUMENTS
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7400
COMPLEXITY: 16 G

FAILURE INDICATOR: SUPPLY CURRENT OUT OF TOLERANCE
DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: OXID
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: EXCESSIVE VCC CURRENT.

MFEF REPORT NUMBER: 332

MFEF REPORT DATE: 7503

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 54S153
DEVICE TECHNOLOGY: STTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: TEXAS INSTRUMENTS
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7338
COMPLEXITY: 16 G

FAILURE INDICATOR: OUTPUT LEAKAGE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: LEAKAGE ON OUTPUT DUE TO LOW BREAKDOWN.

MFEF REPORT NUMBER: 333

MFEF REPORT DATE: 7503

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 54S153
DEVICE TECHNOLOGY: STTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: TEXAS INSTRUMENTS
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7338
COMPLEXITY: 16 G

FAILURE INDICATOR: OUTPUT LEAKAGE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: LOW BREAKDOWN ON OUTPUT.

MFEF REPORT NUMBER: 334

MFFF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 54S153
 DEVICE TECHNOLOGY: STTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7544
 COMPLEXITY: 16 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
 ACTIVATING STRESS B: N/R

REMARKS: STATIC DISCHARGE DAMAGE TO INPUT TRANSISTOR.

MFEF REPORT NUMBER: 338

MFFF REPORT DATE: 7502

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: DM7837
 DEVICE TECHNOLOGY: BIPOLAR (NOC)
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: LINE DRIVER
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7345
 COMPLEXITY: 9 G

FAILURE INDICATOR: CROSSTALK
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: GLASSIVATION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: FAILURE APPEARED TO BE CONNECTED WITH GLASS PASSIVATION ON THE CHIP.

MFEF REPORT NUMBER: 739

MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: 7832
 DEVICE TECHNOLOGY: BIPOLAR (NOC)
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: LINE DRIVER
 PART MANUFACTURER: ADVANCED MICRO DEVICES
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7534
 COMPLEXITY: 9 G

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE
 DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: METAL CONTACT WINDOW
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: NOT MAKING CONTACT IN DIFFUSION WINDOW.

MFEF REPORT NUMBER: 340

MFEF REPORT DATE: 7612

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: 7832
 DEVICE TECHNOLOGY: BIPOLAR (NOC)
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: LINE DRIVER
 PART MANUFACTURER: ADVANCED MICRO DEVICES
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7510
 COMPLEXITY: 9 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: EMITTER METALIZATION OF OUTPUT TRANSISTOR MELTED.

MFEF REPORT NUMBER: 341

MFEF REPORT DATE: 7501

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: SP54
 DEVICE TECHNOLOGY: DTI
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7240
 COMPLEXITY: 0

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: IMPURITIES

FAILURE MODE: GLASSIVATION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: CONTAMINATION UNDER GLASSIVATION LAYER.

MFEF REPORT NUMBER: 342

MFEF REPORT DATE: 7505

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5P54
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS:
 NUMBER OF PINS:
 TIME TO DETECTION:

APPLICATION ENV: N/R

ITT SEMICONDUCTOR DATE CODE: 7400
 COMPLEXITY: 0

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: OHMIC

FAILURE MODE: DIE DIFFUSION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: HIGH BASE DIFFUSION RESISTIVITY.

MFEF REPORT NUMBER: 343

MFEF REPORT DATE: 7404

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5856
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS:
 NUMBER OF PINS:
 TIME TO DETECTION:

APPLICATION ENV: N/R

ITT SEMICONDUCTOR DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: LEAKAGE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: SURFACE
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: HEATING IC LOWERED LEAKAGE. LEAKAGE CAUSED BY IONIC SURFACE CONTAMINATION - A MANUFACTURING DEFECT.

MFEF REPORT NUMBER: 344

MFEF REPORT DATE: 7608

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 930
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS:
 NUMBER OF PINS:
 TIME TO DETECTION:

APPLICATION ENV: N/R

ITT SEMICONDUCTOR DATE CODE: 7546
 COMPLEXITY: 2 G

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: DIE DIFFUSION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: SWITCHING CHARACTERISTICS CHANGED DUE TO VARIATIONS IN DIFFUSION AND/OR GOLD DOPING.

MFEF REPORT NUMBER: 345

MFEF REPORT DATE: 7402

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS:
 NUMBER OF PINS:
 TIME TO DETECTION:

APPLICATION ENV: N/R

RAYTHEON DATE CODE: 7313
 COMPLEXITY: 0

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: WIRE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT PIN [WIRE] SHORTED TO CHIP SUBSTRATE.

MFEF REPORT NUMBER: 346

MFEF REPORT DATE: 7411

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS:
 NUMBER OF PINS:
 TIME TO DETECTION:

APPLICATION ENV: N/R

RAYTHEON DATE CODE: 7331
 COMPLEXITY: 0

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: PINHOLE

FAILURE MODE: FIELD OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: PINHOLE IN THERMAL OXIDE BENEATH METALIZATION STRIPE.

MFEF REPORT NUMBER: 347

MFEF REPORT DATE: 7202

DATA SOURCE: FF-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 9312
DEVICE TECHNOLOGY: TTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: FAIRCHILD SEMI
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7143
COMPLEXITY: 17 G

FAILURE INDICATOR: N/R
DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/A

REMARKS: BLOWN INPUT CLAMP DIODES.

MFEF REPORT NUMBER: 348

MFEF REPORT DATE: 7602

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 9312
DEVICE TECHNOLOGY: TTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: FAIRCHILD SEMI
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7143
COMPLEXITY: 17 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: WIRE
DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: MELTED INPUT LEAD.

MFEF REPORT NUMBER: 349

MFEF REPORT DATE: 7309

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 9312
DEVICE TECHNOLOGY: TTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: ADVANCED MICRO DEVICES
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7304
COMPLEXITY: 17 G

FAILURE INDICATOR: DEGRADED
DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: SHORTED OUTPUT TRANSISTOR.

MFEF REPORT NUMBER: 350

MFEF REPORT DATE: 7309

DATA SOURCE: FF-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 9312
DEVICE TECHNOLOGY: TTL
PACKAGE: N/R N/R
QUANTITY FAILED: 2

DATA-TYPE: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: NOT REPORTED
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 17 G

FAILURE INDICATOR: CROSSTALK
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: CURRENT SPIKING.

MFEF REPORT NUMBER: 351

MFEF REPORT DATE: 7602

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 9312
DEVICE TECHNOLOGY: TTL
PACKAGE: N/R N/R
QUANTITY FAILED: 3

DATA-TYPE: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: ITT SEMICONDUCTOR
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 0
COMPLEXITY: 17 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUTS SHORTED TO GND. DATE CODES 7312 [2 DEVICES] AND 7311 [1 DEVICE].

MFEF REPORT NUMBER: 352

MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: SNC5400S
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7446
 COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: OXIDE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT TRANSISTOR SHORTED UNDER OXIDE.

MFEF REPORT NUMBER: 362

MFEF REPORT DATE: 7510

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: S4S194HL
 DEVICE TECHNOLOGY: STTL
 PACKAGE: METAL CAN
 QUANTITY FAILED: 8

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7508
 COMPLEXITY: 47 G

FAILURE INDICATOR: INPUT LEAKAGE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
 ACTIVATING STRESS B: N/R

REMARKS: INPUT LEAKAGE DUE TO STATIC VOLTAGE ZAPPING OF INPUT TRANSISTOR.

MFEF REPORT NUMBER: 363

MFEF REPORT DATE: 7512

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: RM957
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7309
 COMPLEXITY: 4 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: DIE DIFFUSION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: MISPLACED DIFFUSION CAUSED VOLTAGE FAILURE.

MFEF REPORT NUMBER: 364

MFEF REPORT DATE: 7404

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NOT REPORTED
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUTS SHORTED TO VCC.

MFEF REPORT NUMBER: 365

MFEF REPORT DATE: 7404

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NOT REPORTED
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OPEN OUTPUT.

MFEF REPORT NUMBER: 366

MFEF REPORT DATE: 7402

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: NOT REPORTED
DEVICE TECHNOLOGY: LTTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
CIRCUIT TYPE: N/R
PART MANUFACTURER: NOT REPORTED
SCREEN CLASS: N/R
NUMBER OF PINS: 0
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
ACTIVATING STRESS B: N/R

REMARKS FAILURE CAUSED BY STATIC ELECTRICITY.

MFEF REPORT NUMBER: 367

MFEF REPORT DATE: 7501

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 54L20
DEVICE TECHNOLOGY: LTTL
PACKAGE: N/R N/R
QUANTITY FAILED: 3

DATA-TYPE: N/R APPLICATION ENV: NSS
CIRCUIT TYPE: N/R
PART MANUFACTURER: NOT REPORTED
SCREEN CLASS: N/R
NUMBER OF PINS: 0
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 2 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OPEN INPUTS.

MFEF REPORT NUMBER: 368

MFEF REPORT DATE: 7504

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 54L20
DEVICE TECHNOLOGY: LTTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
CIRCUIT TYPE: N/R
PART MANUFACTURER: TEXAS INSTRUMENTS
SCREEN CLASS: N/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7150
COMPLEXITY: 2 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUTS SHORTED TO GROUND. ONE DEVICE REPORTED 7501. 2 DEVICES REPORTED 7504.

MFEF REPORT NUMBER: 369

MFEF REPORT DATE: 7504

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 54L20
DEVICE TECHNOLOGY: LTTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
CIRCUIT TYPE: N/R
PART MANUFACTURER: TEXAS INSTRUMENTS
SCREEN CLASS: N/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7150
COMPLEXITY: 2 G

FAILURE INDICATOR: DEGRADED
DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUTS RESISTIVELY SHORTED TO GROUND.

MFEF REPORT NUMBER: 370

MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 5476W
DEVICE TECHNOLOGY: TTL
PACKAGE: CERAMIC FPK
QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
CIRCUIT TYPE: JK
PART MANUFACTURER: TEXAS INSTRUMENTS
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7435
COMPLEXITY: 16 G

FAILURE INDICATOR: DEGRADED
DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: SHORTED INPUTS.

MFEF REPORT NUMBER: 371

MFEF REPORT DATE: 7604

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54L86
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OPEN INPUT.

MFEF REPORT NUMBER: 372

MFEF REPORT DATE: 7404

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 54L73
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: JK
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7231
 COMPLEXITY: 14 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: HIGH INPUT CURRENT ON CLOCK.

MFEF REPORT NUMBER: 373

MFEF REPORT DATE: 7404

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 54L53
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7246
 COMPLEXITY: 16 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: SHORTED INPUT.

MFEF REPORT NUMBER: 374

MFEF REPORT DATE: 7406

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 54L95
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 37 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT EMITTERS SHORTED TOGETHER.

MFEF REPORT NUMBER: 375

MFEF REPORT DATE: 7405

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 54L95
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 37 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OPEN INPUT.

MFEF REPORT NUMBER: 376

MFEF REPORT DATE: 7406

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 54L95
DEVICE TECHNOLOGY: LTTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
CIRCUIT TYPE: N/R
PART MANUFACTURER: TEXAS INSTRUMENTS
SCREEN CLASS: N/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 37 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: CLOCK INPUT OPEN.

MFEF REPORT NUMBER: 377

MFEF REPORT DATE: 7611

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: S54080
DEVICE TECHNOLOGY: TTL
PACKAGE: CERAMIC FPK
QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: SIGNETICS
SCREEN CLASS: N/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7115
COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT PIN 4 METALIZATION MELTED.

MFEF REPORT NUMBER: 383

MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 5405
DEVICE TECHNOLOGY: TTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: SIGNETICS
SCREEN CLASS: N/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 37 G

FAILURE INDICATOR: DEGRADED
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: VOLTAGE DROP ALONG GROUND METALIZATION DUE TO CIRCUIT DESIGN.

MFEF REPORT NUMBER: 384

MFEF REPORT DATE: 7006

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: MS19316
DEVICE TECHNOLOGY: TTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: FAIRCHILD SEMI
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 6541
COMPLEXITY: 57 G

FAILURE INDICATOR: DEGRADED
DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: METAL CONTACT WINDOW
DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: INSUFFICIENT WINDOW OPENING AND BONDING BETWEEN METALIZATION AND WINDOWS.

MFEF REPORT NUMBER: 385

MFEF REPORT DATE: 7203

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: MS19316
DEVICE TECHNOLOGY: TTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: FAIRCHILD SEMI
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 57 G

FAILURE INDICATOR: CROSSTALK
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 386

MFEF REPORT DATE: 7510

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: AM9116
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ADVANCED MICRO DEVICES
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7330
 COMPLEXITY: 57 G

FAILURE INDICATOR: FLUCT/OSC OUTPUT
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: DEVICE OUTPUT OSCILLATES WITH CLOCK APPLIED. APPEARS TO BE THRESHOLD PROBLEM.

MFEF REPORT NUMBER: 387

MFEF REPORT DATE: 7203

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NOT REPORTED
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: DIE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: DEFECT IN CNF COUNTER STAGE CAUSES FAILURE AT ELEVATED TEMPERATURE WITH NORMAL VCC. DOPING PROCESS DEFECT.

MFEF REPORT NUMBER: 388

MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 9316
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7144
 COMPLEXITY: 57 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: CRACKED

FAILURE MODE: DIE BULK
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: CRACKED DIE.

MFEF REPORT NUMBER: 389

MFEF REPORT DATE: 7404

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 9316
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NOT REPORTED
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 0
 COMPLEXITY: 57 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 395

MFEF REPORT DATE: 7506

DATA SOURCE: FF-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 54100
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: SHORT TERM HIGH VOLTAGE PULSE APPLIED.

MFEF REPORT NUMBER: 396

MFEF REPORT DATE: 7312

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: MC2107F
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 3 C

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OPEN OUTPUT.

MFEF REPORT NUMBER: 397

MFEF REPORT DATE: 7408

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NOT REPORTED
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OPEN OUTPUT.

MFEF REPORT NUMBER: 398

MFEF REPORT DATE: 0

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 4

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: I/O RELATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT GROUND METALIZATION MELTED. 3 DEVICES REPORTED DC 7402, 1 DEVICE REPORTED DC 7209.

MFEF REPORT NUMBER: 399

MFEF REPORT DATE: 7209

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: SG320
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT SHORTED TO GROUND.

MFEF REPORT NUMBER: 400

MFEF REPORT DATE: 7308

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: MC2125
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7141
 COMPLEXITY: 18 C

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: HOLE

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: CONTAMINATION ENTERED THROUGH HOLE IN PACKAGE SEAL DUE TO PROCESS DEFECT.

MFEF REPORT NUMBER: 401

MFEF REPORT DATE: 7408

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: RFL00K
 DEVICE TECHNOLOGY: TTL
 PACKAGE: METAL PPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: RAYTHEON
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7241
 COMPLEXITY: 10 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: COMBINATION MODULE AND IC FAILURE.

MFEF REPORT NUMBER: 402

MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 7429
 COMPLEXITY: 0

FAILURE INDICATOR: INPUT LEAKAGE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: ICBO LEAKAGE ON INPUT TRANSISTOR CAUSED THRESHOLD SHIFT.

MFEF REPORT NUMBER: 403

MFEF REPORT DATE: 7212

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NOT REPORTED
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: EOS CAUSED FUNCTIONAL ANOMALY BETWEEN INPUTS.

MFEF REPORT NUMBER: 404

MFEF REPORT DATE: 7408

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 9014
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7318
 COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: HUMIDITY
 ACTIVATING STRESS B: N/R

REMARKS: PRESENCE OF MOISTURE DUE TO IMPROPER HERMETIC SEAL.

MFEF REPORT NUMBER: 405

MFEF REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: MC00141
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7338
 COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: METALLIZATION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OPEN METAL RUN DUE TO POOR PHOTORESIST COVERAGE PATTERN DELINEATED BY ANNOTIZATION.

MFEE RPORT NUMBER: 406

MFEE REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: MC9014L
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7338
 COMPLEXITY: 4 C

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: METALIZATION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OPEN METALIZATION STRIPE INTERNAL TO CIRCUIT.

MFEE REPORT NUMBER: 414

MFEE REPORT DATE: 7403

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 5494
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7302
 COMPLEXITY: 6 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: METALIZATION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OPEN VCC METAL DUE TO POOR FANING OF CHIP PRIOR TO GLASS PASSIVATION.

MFEE REPORT NUMBER: 420

MFEE REPORT DATE: 7511

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 54L73
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 2

DATA-TYPE: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: NO RESISTOR IN SERIES WITH INPUTS TIED TO VCC.

MFEE REPORT NUMBER: 421

MFEE REPORT DATE: 7602

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74L73
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: INPUT LEAKAGE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT LEAKAGE DUE TO OVERSTRESS.

MFEE REPORT NUMBER: 422

MFEE REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54S1400M
 DEVICE TECHNOLOGY: STTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7432
 COMPLEXITY: 2 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
 ACTIVATING STRESS B: N/R

REMARKS: STATIC DISCHARGE DAMAGE TO INPUT TRANSISTOR.

MFEF REPORT NUMBER: 423

MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74H106
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7516
 COMPLEXITY: 16 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: OXIDE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT UNDERPASS SHORTED.

MFEF REPORT NUMBER: 424

MFEF REPORT DATE: 7512

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 54H106
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7324
 COMPLEXITY: 16 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: LEAKY UNDERPASS NODE.

MFEF REPORT NUMBER: 425

MFEF REPORT DATE: 7406

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 23611C
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7331
 COMPLEXITY: 0

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: MAS' FAULT

FAILURE MODE: OXIDE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: LOW RESISTANCE SHUNT PATH CAUSED BY OXIDE DEFECT.

MFEF REPORT NUMBER: 426

MFEF REPORT DATE: 7406

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 23611C
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7331
 COMPLEXITY: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE
 DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: DIE DIFFUSION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: MISPLACED ISOLATION DIFFUSION.

MFEF REPORT NUMBER: 427

MFEF REPORT DATE: 7602

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 5N23611C
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 2

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7331
 COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 428

MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: SN5495A
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7512
 COMPLEXITY: 37 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: SMEAR

FAILURE MODE: METALIZATION
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: "A" INPUT METALIZATION SMEARED CAUSING 1 TRANSISTOR TO BE INTERMITTENTLY SHORTED.

MFEF REPORT NUMBER: 429

MFEF REPORT DATE: 7404

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 5494
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NOT REPORTED
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 0
 COMPLEXITY: 48 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT SHORTED TO GROUND.

MFEF REPORT NUMBER: 430

MFEF REPORT DATE: 7406

DATA SOURCE: FF-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: S5495F
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7234
 COMPLEXITY: 37 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: DESIGN APPLICATION MISMATCH.

MFEF REPORT NUMBER: 431

MFEF REPORT DATE: 7503

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: RB5495
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7218
 COMPLEXITY: 37 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: EXACT NATURE OF DEFECT UNDETERMINED DUE TO PORTION OF CHIP BEING DESTROYED.

MFEF REPORT NUMBER: 432

MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: S5495F
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7419
 COMPLEXITY: 37 G

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: TUNNELING

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: OVERVOLTAGE ON VCC RESULTED IN TUNNELING OF ALUMINUM METALIZATION.

MFEF REPORT NUMBER: 433

MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: SN24559C
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: LINE RECEIVER
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 7142
 COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: PIN 14 F-TO-GND METALIZATION MELTED. PIN 14 TRANSISTOR SHORTED C-E UNDER OXIDE.

MFEF REPORT NUMBER: 434

MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: SN24559C
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: LINE RECEIVER
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 7142
 COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: PIN 7 METALIZATION MELTED BETWEEN BOND PAD AND INTERNAL CHIP CIRCUITRY.

MFEF REPORT NUMBER: 435

MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: SN24559C
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: LINE RECEIVER
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 7218
 COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: PIN 8 F-TO-GND METALIZATION MELTED. PIN 8 TRANSISTOR SHORTED C-E UNDER OXIDE.

MFEF REPORT NUMBER: 436

MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: SN24559C
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 2

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: LINE RECEIVER
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: PIN 14 E-TO-GND METALIZATION MELTED. PIN 14 TRANSISTOR SHORTED C-E UNDER OXIDE. ONE DEVICE HAD DATE CODE 7242.

MFEF REPORT NUMBER: 437

MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: SN24559C
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: LINE RECEIVER
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: PIN 8 F-TO-GND METALIZATION MELTED. PIN 8 TRANSISTOR SHORTED C-E UNDER OXIDE.

MFEF REPORT NUMBER: 438

MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
DEVICE FUNCTION: INTERFACE
PART NUMBER:
DEVICE TECHNOLOGY: TTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R
CIRCUIT TYPE: LINE RECEIVER
PART MANUFACTURER:
SCREEN CLASS: N/R
NUMBER OF PINS: 0
TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7418
COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED HI
DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: PIN 14 E-TO-GND METALIZATION MELTED. PIN 14 TRANSISTOR SHORTED C-E UNDER OXIDE.

MFEF REPORT NUMBER: 439

MFEF REPORT DATE: 7510

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
DEVICE FUNCTION: INTERFACE
PART NUMBER: SN35037
DEVICE TECHNOLOGY: BIPOLAR (NOC)
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R
CIRCUIT TYPE: LINE RECEIVER
PART MANUFACTURER: TEXAS INSTRUMENTS
SCREEN CLASS: N/R
NUMBER OF PINS: 0
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7414
COMPLEXITY: 0

FAILURE INDICATOR: DEGRADFD
DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: OXIDE
DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: LEAKAGE BETWEEN GROUND PLANE AND CHIP SUBSTRATE. EXACT DEFECT LOCATION COULD NOT BE DETERMINED.

MFEF REPORT NUMBER: 441

MFEF REPORT DATE: 7504

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INTERFACE
PART NUMBER: 26S12
DEVICE TECHNOLOGY: STTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R
CIRCUIT TYPE: RECEIVER/TRANSMITTER
PART MANUFACTURER: ADVANCED MICRO DEVICES
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 9 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: N/R
DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: DEFECT WAS PRESENT FROM TIME DEVICE FINISHED WAFER PROCESSING.

MFEF REPORT NUMBER: 442

MFEF REPORT DATE: 7506

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER:
DEVICE TECHNOLOGY: TTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER:
SCREEN CLASS: N/R
NUMBER OF PINS: 0
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7016
COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW
DEFECT DESCRIPTION: PARTICLE BRIDGE

FAILURE MODE: SURFACE
DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SPEAR OF ALUMINUM ON SURFACE OF DIE UNDER PASSIVATION.

MFEF REPORT NUMBER: 443

MFEF REPORT DATE: 7407

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: REGISTER LOGIC UNIT
PART NUMBER:
DEVICE TECHNOLOGY: TTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER:
SCREEN CLASS: N/R
NUMBER OF PINS: 0
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7334
COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED HI
DEFECT DESCRIPTION: PINHOLE

FAILURE MODE: OXIDE
DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PINHOLES OR VOIDS IN THE OXIDE.

MFEF REPORT NUMBER: 444

MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: REGISTER LOGIC UNIT
 PART NUMBER: AMD54101
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS:
 NUMBER OF PINS:
 TIME TO DETECTION:

APPLICATION ENV: N/R

ADVANCED MICRO DEVICES DATE CODE: 7429
 N/R COMPLEXITY: 14 G
 14

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT-OF-SPEC DUE TO IMPROPER PROCESSING.

MFEF REPORT NUMBER: 445

MFEF REPORT DATE: 7308

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS:
 NUMBER OF PINS:
 TIME TO DETECTION:

APPLICATION ENV: N/R

NOT REPORTED DATE CODE: 0
 N/R COMPLEXITY: 0
 0

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: 1 DEVICE EXHIBITED DIFFERENT ELECTRICAL DESIGN COMPARED TO OTHER DEVICES MARKED IDENTICALLY.

MFEF REPORT NUMBER: 446

MFEF REPORT DATE: 7602

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: SN75114
 DEVICE TECHNOLOGY: BIPOLAR (NOC)
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: LINE DRIVER
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS:
 NUMBER OF PINS:
 TIME TO DETECTION:

APPLICATION ENV: N/R

DATE CODE: 7421
 COMPLEXITY: 6 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: SCRATCH

FAILURE MODE: METALIZATION
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: METALIZATION SCRATCH CAUSED DEVICE TO FAIL OUTPUT CLAMP DIODE TEST.

MFEF REPORT NUMBER: 447

MFEF REPORT DATE: 7416

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 5414
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 2

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS:
 NUMBER OF PINS:
 TIME TO DETECTION:

APPLICATION ENV: NSS

ADVANCED MICRO DEVICES DATE CODE: 7233
 N/R COMPLEXITY: 6 G
 14

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUTS TO GROUND.

MFEF REPORT NUMBER: 448

MFEF REPORT DATE: 7508

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: 9615
 DEVICE TECHNOLOGY: BIPOLAR (NOC)
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: LINE RECEIVER
 PART MANUFACTURER: ADVANCED MICRO DEVICES
 SCREEN CLASS:
 NUMBER OF PINS:
 TIME TO DETECTION:

APPLICATION ENV: N/R

DATE CODE: 7421
 COMPLEXITY: 36 T
 16

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 444

MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INTERFACE
PART NUMBER: 9615FM-B
DEVICE TECHNOLOGY: BIPOLAR (NOC)
PACKAGE: HERMETIC FPK
QUANTITY FAILED: 3

DATA-TYPE: N/R APPLICATION ENV: N/R
CIRCUIT TYPE: LINE RECEIVER
PART MANUFACTURER: ADVANCED MICRO DEVICES
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7422
COMPLEXITY: 36 T

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: UNBALANCE IN RESISTOR VALUES IN INPUT STAGE.

MFEF REPORT NUMBER: 450

MFEF REPORT DATE: 7204

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INTERFACE
PART NUMBER: 9615
DEVICE TECHNOLOGY: BIPOLAR (NOC)
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
CIRCUIT TYPE: LINE RECEIVER
PART MANUFACTURER: FAIRCHILD SEMI
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7124
COMPLEXITY: 36 T

FAILURE INDICATOR: OUTPUT LATCHED HI
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 451

MFEF REPORT DATE: 7405

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INTERFACE
PART NUMBER: 9615
DEVICE TECHNOLOGY: BIPOLAR (NOC)
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
CIRCUIT TYPE: LINE RECEIVER
PART MANUFACTURER: FAIRCHILD SEMI
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7329
COMPLEXITY: 36 T

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: DIE DIFFUSION
DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: MISPLACED DIFFUSION.

MFEF REPORT NUMBER: 452

MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INTERFACE
PART NUMBER: 9615
DEVICE TECHNOLOGY: BIPOLAR (NOC)
PACKAGE: N/R N/R
QUANTITY FAILED: 3

DATA-TYPE: N/R APPLICATION ENV: N/R
CIRCUIT TYPE: LINE RECEIVER
PART MANUFACTURER: ADVANCED MICRO DEVICES
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7401
COMPLEXITY: 36 T

FAILURE INDICATOR: INPUT OFFSET VOLT OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: INPUT OFFSET UNBALANCE DUE TO MISMATCHED RESISTORS.

MFEF REPORT NUMBER: 453

MFEF REPORT DATE: 7406

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
DEVICE FUNCTION: INTERFACE
PART NUMBER:
DEVICE TECHNOLOGY: BIPOLAR (NOC)
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
CIRCUIT TYPE: LINE RECEIVER
PART MANUFACTURER:
SCREEN CLASS: N/R
NUMBER OF PINS: 0
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED HI
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 454

MFEF REPORT DATE: 7406

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER:
 DEVICE TECHNOLOGY: BIPOLAR (NOC)
 PACKAGE: N/R N/R
 QUANTITY FAILED: 2

DATA-TYPE: N/R
 CIRCUIT TYPE: LINE RECEIVER
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT TO VCC.

MFEF REPORT NUMBER: 455

MFEF REPORT DATE: 7410

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 5414
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7233
 COMPLEXITY: 6 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OVERLOAD TO GROUND.

MFEF REPORT NUMBER: 456

MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: 9615
 DEVICE TECHNOLOGY: BIPOLAR (NOC)
 PACKAGE: N/R N/R
 QUANTITY FAILED: 2

DATA-TYPE: N/R
 CIRCUIT TYPE: LINE RECEIVER
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7402
 COMPLEXITY: 36 T

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: MODULE SPECS TIGHTER THAN COMPONENT SPECS.

MFEF REPORT NUMBER: 457

MFEF REPORT DATE: 7205

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 9328
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7112
 COMPLEXITY: 16 B

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: DIE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: POOR PROCESS CONTROL DURING EPITAXIAL LAYER GROWTH OR THE BURIED LAYER DIFFUSION.

MFEF REPORT NUMBER: 458

MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 9328
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7404
 COMPLEXITY: 16 B

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: N/R
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 459

MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 54153
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 0
 SCREEN CLASS: N/R COMPLEXITY: 16 G
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: GROSS LEAKAGE RELATED TO SYLVANIA COVER PLATE MODULE DESIGN.

MFEF REPORT NUMBER: 460

MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 985A
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS DATE CODE: 0
 SCREEN CLASS: N/R COMPLEXITY: 0
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: OHMIC

FAILURE MODE: METAL CONTACT WINDOW
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: HIGH CONTACT RESISTANCE BETWEEN METAL AND SILICON AT ANODE CONTACT OF Q OUTPUT STAGE.

MFEF REPORT NUMBER: 461

MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: SN54S151
 DEVICE TECHNOLOGY: STTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7508
 SCREEN CLASS: N/R COMPLEXITY: 17 G
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: LOOSE

FAILURE MODE: PACKAGE DIE ATTACH BOND
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: LOOSE DIF.

MFEF REPORT NUMBER: 462

MFEF REPORT DATE: 7512

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 54S151
 DEVICE TECHNOLOGY: STTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7518
 SCREEN CLASS: N/R COMPLEXITY: 17 G
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: ETCH FAULT

FAILURE MODE: METALIZATION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: SCHOTTKY BARRIER METALIZATION OVERETCHED.

MFEF REPORT NUMBER: 463

MFEF REPORT DATE: 7602

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: SN23615C
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7344
 SCREEN CLASS: N/R COMPLEXITY: 0
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT METALIZATION MELTED OPEN.

MFEF REPORT NUMBER: 464

MFEF REPORT DATE: 7402

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NOT REPORTED
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT SHORTED TO GROUND.

MFEF REPORT NUMBER: 465

MFEF REPORT DATE: 7409

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 5405
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7304
 COMPLEXITY: 6 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: DISCOLORED

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: VCC BOND WIRE BURNED.

MFEF REPORT NUMBER: 466

MFEF REPORT DATE: 7405

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: SN7404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NOT REPORTED
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 467

MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7438
 COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: VARIOUS INPUTS AND OUTPUTS MELTED.

MFEF REPORT NUMBER: 468

MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7322
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT PIN 9 METALIZATION MELTED.

MFEF REPORT NUMBER: 469

MFEF REPORT DATE: 7511

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NOT REPORTED
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: VCC LEAD WIRE MELTED.

MFEF REPORT NUMBER: 470

MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5420
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: JAN
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7506
 COMPLEXITY: 2 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: DIE DIFFUSION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: IMPERFECTION IN INPUT 12 EMITTER DIFFUSION WHICH HAD METALIZATION ALLOWED DOWN INTO IT.

MFEF REPORT NUMBER: 471

MFEF REPORT DATE: 7406

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5420
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT "STUCK AT" 0.

MFEF REPORT NUMBER: 472

MFEF REPORT DATE: 7403

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5420
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NOT REPORTED
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT TO GROUND SHORT.

MFEF REPORT NUMBER: 473

MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5420
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: CINETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: OXIDE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: VARIOUS INPUTS MELTED AND/OR SHORTED UNDER OXIDE.

MFEF REPORT NUMBER: 474

MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5420
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7440
 COMPLEXITY: 2 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: OXIDE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: VARIOUS INPUTS MELTED AND/OR SHORTED UNDER OXIDE.

MFEF REPORT NUMBER: 475

MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: SN5400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7331
 COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT LEAD MELTED. TRANSISTOR EMITTER METALIZATION MELTED AND SHORTED C-E UNDER OXIDE.

MFEF REPORT NUMBER: 476

MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: SN5400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7435
 COMPLEXITY: 4 G

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: METAL CONTACT WINDOW
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OXIDE IN RESISTOR WINDOW.

MFEF REPORT NUMBER: 477

MFEF REPORT DATE: 7406

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: SN5400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7329
 COMPLEXITY: 4 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: METAL CONTACT WINDOW
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: CLAMP DIODE CONTACT AREA TOO SMALL.

MFEF REPORT NUMBER: 478

MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: SN5400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: N/R
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7339
 COMPLEXITY: 0

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: CURRENT STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: INPUT 5 DIODE DAMAGED C-A DUE TO CURRENT OVERLOAD.

MFEF REPORT NUMBER: 479

MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 2

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7426
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: VARIOUS INPUTS MELTED OPEN AND SHORTED UNDER OXIDE.

MFEF REPORT NUMBER: 480

MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7426
 COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT TRANSISTOR SHORTED C-E UNDER OXIDE.

MFEF REPORT NUMBER: 481

MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 2

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: VARIOUS LEADS MELTED. INPUTS MELTED OPEN. DATE CODES 7426 [2 DEVICES] AND 7-22 [1 DEVICE].

MFEF REPORT NUMBER: 482

MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 4

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7440
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: VARIOUS LEADS MELTED. INPUTS MELTED OPEN.

MFEF REPORT NUMBER: 483

MFEF REPORT DATE: 7510

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54570
 DEVICE TECHNOLOGY: STTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7223
 COMPLEXITY: 2 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
 ACTIVATING STRESS B: N/R

REMARKS: INPUT TRANSISTOR BLOWN, APPARENTLY BY STATIC DISCHARGE.

MFEF REPORT NUMBER: 486

MFEF REPORT DATE: 7611

DATA SOURCE FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7630
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: GATE OXIDE DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: PIN 10 INPUT TRANSISTOR SHORTED UNDER OXIDE EMITTER-TO-BASE.

MFEF REPORT NUMBER 487

MFEF REPORT DATE: 7611

DATA SOURCE FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7630
 COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT PIN 4 BONDING WIRE MELTED.

MFEF REPORT NUMBER 488

MFEF REPORT DATE: 7611

DATA SOURCE FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: SN74LS30
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7604
 COMPLEXITY: 1 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: SHORT BETWEEN ADJACENT INPUTS.

MFEF REPORT NUMBER: 489

MFEF REPORT DATE: 7604

DATA SOURCE FE-0003 SOURCE: EQUIPMENT TEST
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 74LS164
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7604
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: OXIDE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
 ACTIVATING STRESS B: N/R

REMARKS: INPUT PIN 1 SHORTED TO SUBSTRATE DUE TO STATIC DISCHARGE.

MFEF REPORT NUMBER: 490

MFEF REPORT DATE: 7604

DATA SOURCE FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER:
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7637
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT 2 WAS PATTERN SENSITIVE.

MFEF REPORT NUMBER: 491

MFEF REPORT DATE: 7705

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 3411JS
 DEVICE TECHNOLOGY: PMOS
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7132
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: OXIDE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
 ACTIVATING STRESS B: N/R

REMARKS: INPUT 9 SHORTED TO SUBSTRATE DUE TO STATIC DISCHARGE.

MFEF REPORT NUMBER: 492

MFEF REPORT DATE: 7610

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 3411JS
 DEVICE TECHNOLOGY: PMOS
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: N/R
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7301
 COMPLEXITY: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: INPUT 7 STAGE HAD NO OUTPUT. DEFECT COULD NOT BE LOCATED.

MFEF REPORT NUMBER: 493

MFEF REPORT DATE: 7705

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 3411JS
 DEVICE TECHNOLOGY: PMOS
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7345
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: OXIDE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
 ACTIVATING STRESS B: N/R

REMARKS: INPUT 7 SHORTED TO SUBSTRATE DUE TO STATIC DISCHARGE.

MFEF REPORT NUMBER: 494

MFEF REPORT DATE: 7705

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 3411JS
 DEVICE TECHNOLOGY: PMOS
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7420
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: OXIDE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
 ACTIVATING STRESS B: N/R

REMARKS: INPUT 7 SHORTED TO SUBSTRATE DUE TO STATIC DISCHARGE.

MFEF REPORT NUMBER: 495

MFEF REPORT DATE: 7401

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 944
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: POWER
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: 10V OR GREATER STRESS APPLIED TO OUTPUT TRANSISTORS.

MFEF REPORT NUMBER: 496

MFEF REPORT DATE: 7404

DATA SOURCE: FF-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: SW772
 DEVICE TECHNOLOGY: DTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: RS
 PART MANUFACTURER: STEWART WARNER
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 24 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 499

MFEF REPORT DATE: 7507

DATA SOURCE: FF-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 7562
 DEVICE TECHNOLOGY: STTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7321
 COMPLEXITY: 0 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: MARGINAL CIRCUIT DESIGN CAN CAUSE HIGH TEMPERATURE PROBLEMS.

MFEF REPORT NUMBER: 500

MFEF REPORT DATE: 7608

DATA SOURCE: FF-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: ENCODER
 PART NUMBER: 9316
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7602
 COMPLEXITY: 8 B

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: PINHOLE

FAILURE MODE: OXIDE
 DEFECT CAUSE: LEAD FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OXIDE PINHOLE.

MFEF REPORT NUMBER: 503

MFEF REPORT DATE: 7504

DATA SOURCE: FF-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7504
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: FAILS FALL TIME.

MFEF REPORT NUMBER: 504

MFEF REPORT DATE: 7604

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7504
 COMPLEXITY: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 500 MFEF REPORT DATE: 7607

DATA SOURCE: FF-0003	SOURCE: EQUIPMENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER		CIRCUIT TYPE: N/R	
PART NUMBER:		PART MANUFACTURER:	DATE CODE: 7515
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: N/R	COMPLEXITY: 0
PACKAGE: N/R	N/R	NUMBER OF PINS: 0	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: PINS 6 AND 7 METALIZATION MELTED.

MFEF REPORT NUMBER: 506 MFEF REPORT DATE: 7607

DATA SOURCE: FF-0003	SOURCE: EQUIPMENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER		CIRCUIT TYPE: N/R	
PART NUMBER:		PART MANUFACTURER:	DATE CODE: 7516
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: N/R	COMPLEXITY: 0
PACKAGE: N/R	N/R	NUMBER OF PINS: 0	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT 6 METALIZATION MELTED AND INPUT DIODE SHORTED UNDER OXIDE.

MFEF REPORT NUMBER: 507 MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003	SOURCE: EQUIPMENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER		CIRCUIT TYPE: N/R	
PART NUMBER:		PART MANUFACTURER:	DATE CODE: 7516
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: N/R	COMPLEXITY: 0
PACKAGE: N/R	N/R	NUMBER OF PINS: 0	
QUANTITY FAILED:		TIME TO DETECTION: 0	

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: HILLOCK

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: VARIOUS INPUTS MELTED.

MFEF REPORT NUMBER: 509 MFEF REPORT DATE: 7309

DATA SOURCE: FF-0003	SOURCE: EQUIPMENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 74500		PART MANUFACTURER: TEXAS INSTRUMENTS	DATE CODE: 7226
DEVICE TECHNOLOGY: STTL		SCREEN CLASS: N/R	COMPLEXITY: 4 G
PACKAGE: N/R	N/R	NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: OPEN (N/C)

FAILURE MODE: METALIZATION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: GROUND METALIZATION OPEN ON OUTPUT TRANSISTOR.

MFEF REPORT NUMBER: 510 MFEF REPORT DATE: 7510

DATA SOURCE: FF-0003	SOURCE: COMPONENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 54810W		PART MANUFACTURER: TEXAS INSTRUMENTS	DATE CODE: 7443
DEVICE TECHNOLOGY: STTL		SCREEN CLASS: N/R	COMPLEXITY: 3 G
PACKAGE: CERAMIC	2P	NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: FAULT (N/C)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
 ACTIVATING STRESS B: N/R

REMARKS: APPEARS TO BE STATIC ELECTRICAL DAMAGE.

MFFF REPORT NUMBER: 511

MFFF REPORT DATE: 7508

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54810
 DEVICE TECHNOLOGY: STTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7426
 COMPLEXITY: 3 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: DAMAGED DIODE.

MFFF REPORT NUMBER: 512

MFFF REPORT DATE: 7505

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54810
 DEVICE TECHNOLOGY: STTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7410
 COMPLEXITY: 3 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: IMPROPER HERMETIC SEAL.

MFFF REPORT NUMBER: 513

MFFF REPORT DATE: 7505

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54810
 DEVICE TECHNOLOGY: STTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7410
 COMPLEXITY: 3 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS:

MFFF REPORT NUMBER: 514

MFFF REPORT DATE: 7506

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54810
 DEVICE TECHNOLOGY: STTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7410
 COMPLEXITY: 3 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: WEAK PACKAGE COUPLED WITH POOR MOUNTING TECHNIQUE.

MFFF REPORT NUMBER: 515

MFFF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54810
 DEVICE TECHNOLOGY: STTL
 PACKAGE: CERAMIC EPF
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7422
 COMPLEXITY: 3 G

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: IMPROVE DOPING PROCESS.

MFEF REPORT NUMBER: 516

MFEF REPORT DATE: 7602

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: STTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7516
 COMPLEXITY: 0

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: HIGH INPUT CAPACITANCE.

MFEF REPORT NUMBER: 517

MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: REGISTER LOGIC UNIT
 PART NUMBER: SN54S181
 DEVICE TECHNOLOGY: STTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7424
 COMPLEXITY: 63 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
 ACTIVATING STRESS B: N/R

REMARKS: SHORTED INPUT DUE TO STATIC DISCHARGE.

MFEF REPORT NUMBER: 518

MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: REGISTER LOGIC UNIT
 PART NUMBER: 54S181J
 DEVICE TECHNOLOGY: STTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: LIFE
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7526
 COMPLEXITY: 63 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: WIRE
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: BONDING WIRE TOUCHING EDGE OF CHIP.

MFEF REPORT NUMBER: 519

MFEF REPORT DATE: 7501

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7451
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 522

MFEF REPORT DATE: 7408

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLIER
 PART NUMBER: CD4051
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7404
 COMPLEXITY: 0

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: DIFFUSION FAULT

FAILURE MODE: DIE DIFFUSION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: INCOMPLETE N-DIFFUSION.

MFEF REPORT NUMBER: 527

MFEF REPORT DATE: 7507

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: N/P N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS:
 NUMBER OF PINS:
 TIME TO DETECTION:

APPLICATION ENV: N/R
 NOT REPORTED
 DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: PINHOLE

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: SHORT CAUSED BY PINHOLE IN OXIDE LAYER BENEATH GATE METALIZATION.

MFEF REPORT NUMBER: 528

MFEF REPORT DATE: 7508

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: N/R N/R
 QUANTITY FAILED: 2

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS:
 NUMBER OF PINS:
 TIME TO DETECTION:

APPLICATION ENV: N/R
 NOT REPORTED
 DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: FULT (NOC)

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: DEFECTIVE GATE OXIDE.

MFEF REPORT NUMBER: 543

MFEF REPORT DATE: 7506

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS:
 NUMBER OF PINS:
 TIME TO DETECTION:

APPLICATION ENV: N/R
 DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 544

MFEF REPORT DATE: 7507

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS:
 NUMBER OF PINS:
 TIME TO DETECTION:

APPLICATION ENV: N/R
 DATE CODE: 7430
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: PACKAGE LEAD FRAME/EXTERNAL LEADS
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS PINS WERE SHORTED TOGETHER.

MFEF REPORT NUMBER: 545

MFEF REPORT DATE: 7506

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS:
 NUMBER OF PINS:
 TIME TO DETECTION:

APPLICATION ENV: N/R
 DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 546

MFEF REPORT DATE: 7405

DATA SOURCE: FF-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 74H30
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7330
 COMPLEXITY: 1 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: CMT 4 HAD 1 TRANSISTOR WITH POOR VCE SATURATION CHARACTERISTICS.

MFEF REPORT NUMBER: 547

MFEF REPORT DATE: 7712

DATA SOURCE: FF-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7337
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METAL BOND PAD
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: BOND PADS 1,2 AND 4 MELTED AND ALLOYED INTO DIE.

MFEF REPORT NUMBER: 549

MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 54H04
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7114
 COMPLEXITY: 6 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: MELTED METALIZATION ON INVERTER CHIP.

MFEF REPORT NUMBER: 553

MFEF REPORT DATE: 7701

DATA SOURCE: FF-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: SN5400N
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC PPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7225
 COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: NAND GATE METALIZATION MELTED AT OUTPUT.

MFEF REPORT NUMBER: 555

MFEF REPORT DATE: 7701

DATA SOURCE: FF-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: SN74H10W
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: CERAMIC FPA
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7325
 COMPLEXITY: 14 G

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: FLIP-FLOP METALIZATION MELTED AT OUTPUT.

MFEF REPORT NUMBER: 556

MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: SN74H04W
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7328
 COMPLEXITY: 6 G

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: GROUND LEAD MELTED ON INVERTER AND MUCH DAMAGE TO METALIZATION.

MFEF REPORT NUMBER: 557

MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: SN74H04W
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7328
 COMPLEXITY: 6 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: METALIZATION ON INVERTER CHIP MELTED.

MFEF REPORT NUMBER: 558

MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: SN74H04W
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7328
 COMPLEXITY: 6 G

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INTERNAL LEAD 4 MELTED IN TWO AND SOME METALIZATION DAMAGE EXISTED.

MFEF REPORT NUMBER: 559

MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 54H04
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7349
 COMPLEXITY: 6 G

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: GROUND LEAD OF INVERTER CHIP MELTED IN TWO AND SOME METALIZATION DAMAGED.

MFEF REPORT NUMBER: 560

MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 54H04
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7403
 COMPLEXITY: 6 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: METALIZATION AT INPUT OF INVERTER MELTED.

MFEF REPORT NUMBER: 561

MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 54404
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7403
 COMPLEXITY: 6 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: MELTED METALIZATION ON INVERTER CHIP.

MFEF REPORT NUMBER: 562

MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74H101
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7336
 COMPLEXITY: 14 G

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 563

MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74H101
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: NOT REPORTED
 SCREEN CLASS: N/P
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7423
 COMPLEXITY: 14 G

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT LEAD OF FLIP-FLOP AT PIN 8 MELTED.

MFEF REPORT NUMBER: 564

MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 54404
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: N/R N/P
 QUANTITY FAILED: 3

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7426
 COMPLEXITY: 6 G

FAILURE INDICATOR: OUTPUT LATCHED LOW
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: MELTED METALIZATION ON INVERTER CHIP.

MFEF REPORT NUMBER: 565

MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ADVANCED MICRO DEVICES
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/P

DATE CODE: 7412
 COMPLEXITY: 0

FAILURE INDICATOR: INPUT LEAKAGE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: N/R

REMARKS: INPUT LEAKAGE.

MFEE REPORT NUMBER: 566

MFEE REPORT DATE: 7512

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 54H90W
DEVICE TECHNOLOGY: HTTL
PACKAGE: CERAMIC FPK
QUANTITY FAILED: 1

DATA-TYPE: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER:
SCREEN CLASS: N/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

TEXAS INSTRUMENTS DATE CODE: 7238
COMPLEXITY: 4 C

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER: 567

MFEE REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 93L16DM
DEVICE TECHNOLOGY: LTTL
PACKAGE: CERAMIC DIP
QUANTITY FAILED: 1

DATA-TYPE: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER:
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

FAIRCHILD SEMI DATE CODE: 7314
COMPLEXITY: 58 C

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: PINHOLE

FAILURE MODE: OXIDE
DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PINHOLE IN OXIDE.

MFEE REPORT NUMBER: 568

MFEE REPORT DATE: 7608

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: F93L1659
DEVICE TECHNOLOGY: LTTL
PACKAGE: HERMETIC FPK
QUANTITY FAILED: 1

DATA-TYPE: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER:
SCREEN CLASS: N/R
NUMBER OF PINS: 0
TIME TO DETECTION: 0

APPLICATION ENV: N/R

FAIRCHILD SEMI DATE CODE: 7222
COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: HIGH VCF [SAT] VARIED THRESHOLD OF FLIP-FLOP. EXACT NATURE OF DEFECT NOT DETERMINED.

MFEE REPORT NUMBER: 569

MFEE REPORT DATE: 7608

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 9316
DEVICE TECHNOLOGY: TTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER:
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

FAIRCHILD SEMI DATE CODE: 7534
COMPLEXITY: 58 C

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: EXACT NATURE OF DEFECT NOT DETERMINED.

MFEE REPORT NUMBER: 570

MFEE REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 54S194
DEVICE TECHNOLOGY: STTL
PACKAGE: HERMETIC N/R
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER:
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

FAIRCHILD SEMI DATE CODE: 7419
COMPLEXITY: 47 C

FAILURE INDICATOR: N/R
DEFECT DESCRIPTION: BROKEN

FAILURE MODE: PACKAGE SEAL
DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: THERMAL HEATPLATE FLEXING BROKE PUG HERMETIC SEAL, DUE TO MECHANICAL OF PCB LAYOUT.

MEEF REPORT NUMBER: 571

MEEF REPORT DATE: 7-01

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 93L16
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NOT REPORTED
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 58 G

FAILURE INDICATOR: DEGRADED
 DEFECT DESCRIPTION: SHORT (VCC)

FAILURE MODE: DIE DIFFUSION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
 ACTIVATING STRESS B: N/R

REMARKS: STATIC DISCHARGE SHORTED CROSSUNDER DIFFUSION TO ISOLATION BOAT WHICH WAS TIED TO VCC.

MEEF REPORT NUMBER: 572

MEEF REPORT DATE: 7-04

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 93L16
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 7419
 COMPLEXITY: 58 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: CORRUPT

FAILURE MODE: WIRE
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: HUMIDITY
 ACTIVATING STRESS B: N/R

REMARKS: LEAD WIRES CORRODED DUE TO SALT ATMOSPHERE ENTERING THROUGH A PACKAGE LEAK.

MEEF REPORT NUMBER: 579

MEEF REPORT DATE: 7-02

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: SN5400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7517
 COMPLEXITY: 4 G

FAILURE INDICATOR: SHORT INPUT
 DEFECT DESCRIPTION: SHORT (VCC)

FAILURE MODE: FIELD OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: INPUT PIN 9 SHORTED UNDER OXIDE FROM CATHODE OF INPUT PROTECTION DIODE TO GND METAL. DUE TO HIGH + VOLTAGE (>VCC) EOS.

MEEF REPORT NUMBER: 580

MEEF REPORT DATE: 7-03

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: REGISTER UNIT UNIT
 PART NUMBER: 93L16
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ADVANCED MICRO DEVICES
 SCREEN CLASS: N/R
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 65 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: SHORT (VCC)

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: INPUT 22 METAL RUN SHORTED UNDER WIRE TO NEARBY METAL RUN. LIKELY DUE TO HIGH PLUS POTENTIAL (>VCC) EOS.

MEEF REPORT NUMBER: 581

MEEF REPORT DATE: 7-04

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: N/R
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R APPLICATION ENV: NSS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

DATE CODE: 7419
 COMPLEXITY: 4 B

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: SHORT (VCC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: PIN 12 OUTPUT TRANSISTOR SHORTED (+TO-E UNDER THE OXIDE DUE TO HIGH PLUS POTENTIAL (>VCC) EOS.

MFEF REPORT NUMBER: 582

MFEF REPORT DATE: 7904

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 540-
 DEVICE TECHNOLOGY: TI
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7613
 COMPLEXITY: 6 C

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: ALL 6 OUTPUT TRANS (PINS 1, 2, 5, 10, 12) SHORTED UNDER OXIDE, C-E. METAL MELTED BETWEEN E-GND. FI POS. POT. (DVCC) EOS - PINS

MFEF REPORT NUMBER: 583

MFEF REPORT DATE: 7904

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: SN54L153
 DEVICE TECHNOLOGY: LITL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 2

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7611
 COMPLEXITY: 16 C

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: SHORT (XOC)

FAILURE MODE: METAL BOND PAD
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: DEV. #1: INPUT 6,12 BOND PADS SHORTED UNDER OXIDE TO GND. DEV. #2: INPUT 3,11 BOND PADS SHORTED UNDER OXIDE TO GND.

MFEF REPORT NUMBER: 584

MFEF REPORT DATE: 7904

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: SN54L153
 DEVICE TECHNOLOGY: LITL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7610
 COMPLEXITY: 14 C

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: PIN 9 OUTPUT TRANS. SHORTED UNDER OXIDE C-E. METALIZATION MELTED BETWEEN E-GND. HIGH POS. POTENTIAL (DVCC) EOS.

MFEF REPORT NUMBER: 585

MFEF REPORT DATE: 0

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74C91A
 DEVICE TECHNOLOGY: TI
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 0
 COMPLEXITY: 44 C

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: OUTPUT 11 BONDING WIRE AND OUTPUT TRANSISTOR EMITTER METAL MELTED DUE TO EOS IN EXCESS OF VCC. DC 1330. 7351.

MFEF REPORT NUMBER: 586

MFEF REPORT DATE: 0

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74C91A
 DEVICE TECHNOLOGY: TI
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7403
 COMPLEXITY: 44 C

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: SHORT (XOC)

FAILURE MODE: METAL MULTI-LAYER INTERFACE
 DEFECT CAUSE: ELECTROMIGRATION

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT 1 METAL SHORT TO VCC METAL VIA VOID IN SOLDER ISOLATION GLASS - METAL MIGRATION. MANUFACTURING DEFECT.

MFEF REPORT NUMBER: 587 MFEF REPORT DATE: 0

DATA SOURCE: FE-0004	SOURCE: EQUIPMENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: NSS
DEVICE FUNCTION: COUNTER		CIRCUIT TYPE: BINARY	
PART NUMBER: 9316		PART MANUFACTURER: FAIRCHILD SEMI	DATE CODE: 7410
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: N/R	COMPLEXITY: 44 G
PACKAGE: N/R	N/R	NUMBER OF PINS: 16	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: SHORT INPUT
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTROSTATIC DISCHARGE

REMARKS: C-E RESISTIVE SHORT AT PIN 9 INPUT TRANSISTOR AS RESULT OF VOLTAGE >50V, POSSIBLY ESD.

MFEF REPORT NUMBER: 588 MFEF REPORT DATE: 0

DATA SOURCE: FF-0004	SOURCE: EQUIPMENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: NSS
DEVICE FUNCTION: COUNTER		CIRCUIT TYPE: BINARY	
PART NUMBER: 9316		PART MANUFACTURER: FAIRCHILD SEMI	DATE CODE: 7117
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: N/R	COMPLEXITY: 44 G
PACKAGE: N/R	N/R	NUMBER OF PINS: 16	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: OUTPUT LATCHED HI
 DEFECT DESCRIPTION: CORRODED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: HUMIDITY
 ACTIVATING STRESS B: N/R

REMARKS: PHOSPHORIC RESIDUE [CLEANING/SEALING PROCESS] SCATTERED ON DIE SURFACE. METAL EATEN AWAY. MOIST. - PHOSPH. ACID - CORROS

MFEF REPORT NUMBER: 589 MFEF REPORT DATE: 7706

DATA SOURCE: FF-0004	SOURCE: EQUIPMENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER		CIRCUIT TYPE: N/R	
PART NUMBER: 54153		PART MANUFACTURER: SIGNETICS	DATE CODE: 7410
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: N/R	COMPLEXITY: 16 G
PACKAGE: N/R	N/R	NUMBER OF PINS: 16	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: NON-FUNCT, IN-OP, CATAS
 DEFECT DESCRIPTION: CRACKED

FAILURE MODE: GLASSIVATION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: EXTENSIVE CRACKING/PEELING OF BOND PAD GLASSIVATION, CAUSING LIFTING OF THE WIREBONDS. POOR GLASS APPLICATION PROCESS.

MFEF REPORT NUMBER: 590 MFEF REPORT DATE: 7705

DATA SOURCE: FE-0004	SOURCE: EQUIPMENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 54S10		PART MANUFACTURER: TEXAS INSTRUMENTS	DATE CODE: 7612
DEVICE TECHNOLOGY: STTL		SCREEN CLASS: N/R	COMPLEXITY: 3 G
PACKAGE: N/R	N/R	NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: BROKEN

FAILURE MODE: WIREBOND LEAD FRAME HEEL
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: P7 (GNI) BOND WIRE AT IFAD FRAME BROKEN AT HEEL. EXCESSIVE PRESSURE DURING ULTRASONIC BOND FLATTENED LEAD.

MFEF REPORT NUMBER: 591 MFEF REPORT DATE: 0

DATA SOURCE: FE-0004	SOURCE: EQUIPMENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: NSS
DEVICE FUNCTION: INTERFACE		CIRCUIT TYPE: LINE DRIVER	
PART NUMBER: 9614		PART MANUFACTURER: TEXAS INSTRUMENTS	DATE CODE: 7248
DEVICE TECHNOLOGY: BIPOLAR (NOC)		SCREEN CLASS: N/R	COMPLEXITY: 6 G
PACKAGE: N/R	N/R	NUMBER OF PINS: 16	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: INPUT LEAKAGE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: SURFACE
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: B-E LEAKAGE PATH AT INPUT Q2 CAUSING FAILURE AT +60C. STRIPPING THERMAL OXIDE DID NOT CURE DEVICE. MANUFACTURING DEFECT.

MFEE REPORT NUMBER. 592 MFEE REPORT DATE. 0

DATA SOURCE: FF-0004	SOURCE: EQUIPMENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: NSS
DEVICE FUNCTION: FLIP-FLOP		CIRCUIT TYPE: D	
PART NUMBER: SN5474		PART MANUFACTURER: TEXAS INSTRUMENTS	DATE CODE: 7326
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: N/R	COMPLEXITY: 12 G
PACKAGE: N/R	N/R	NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: GLASSIVATION
 DEFECT DESCRIPTION: CRACKED DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OVERLY THICK GLASSIVATION LAYER CONTAINED NUMEROUS CRACKS. SUSPECT HIGH LEAKAGE PATH ON DIE SURFACE.

MFEE REPORT NUMBER: 593 MFEE REPORT DATE: 0

DATA SOURCE: FF-0004	SOURCE: EQUIPMENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: NSS
DEVICE FUNCTION: INTERFACE		CIRCUIT TYPE: LINE DRIVER	
PART NUMBER: 9614		PART MANUFACTURER: ADVANCED MICRO DEVICES	DATE CODE: 7632
DEVICE TECHNOLOGY: BIPOAR (NOC)		SCREEN CLASS: N/R	COMPLEXITY: 6 G
PACKAGE: N/R	N/R	NUMBER OF PINS: 16	
QUANTITY FAILED: 4		TIME TO DETECTION: 0	

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
 DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: OUTPUT TRANSISTOR SHORTED [UNDER OXIDE] C-E, 2 CURRENT SOURCE TRANS SHORTED, 1 E-B, 1 C-E. HI POSITIVE (>VCC) EOS.

MFEE REPORT NUMBER. 595 MFEE REPORT DATE: 7904

DATA SOURCE: FE-0004	SOURCE: EQUIPMENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: NSS
DEVICE FUNCTION: REGISTER LOGIC UNIT		CIRCUIT TYPE: N/R	
PART NUMBER: 93L40		PART MANUFACTURER: ADVANCED MICRO DEVICES	DATE CODE: 7618
DEVICE TECHNOLOGY: LTTL		SCREEN CLASS: N/R	COMPLEXITY: 63 G
PACKAGE: N/R	N/R	NUMBER OF PINS: 24	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: N/R FAILURE MODE: N/R
 DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: P7 INPUT TRANSISTOR SHORTED [UNDER OXIDE] C-E. 2ND TRANSISTOR SHORTED E-B. HIGH POSITIVE POTENTIAL (>VCC) EOS.

MFEE REPORT NUMBER: 596 MFEE REPORT DATE: 7904

DATA SOURCE: FE-0004	SOURCE: EQUIPMENT LEVEL	DATA-TYPE: N/R	APPLICATION ENV: NSS
DEVICE FUNCTION: REGISTER LOGIC UNIT		CIRCUIT TYPE: N/R	
PART NUMBER: 93L40		PART MANUFACTURER: ADVANCED MICRO DEVICES	DATE CODE: 7618
DEVICE TECHNOLOGY: LTTL		SCREEN CLASS: N/R	COMPLEXITY: 63 G
PACKAGE: N/R	N/R	NUMBER OF PINS: 24	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: N/R FAILURE MODE: METALIZATION
 DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: INPUT 11 SHORTED [UNDER OXIDE] C-E. MELTED METAL BETWEEN PIN 11 BOND PAD, TRANS EMITTER. HI POS. VOLT. (>VCC) EOS.

MFEE REPORT NUMBER: 597 MFEE REPORT DATE: 7908

DATA SOURCE: FF-0005	SOURCE: COMPONENT LEVEL	DATA-TYPE: DEV EVALUATION	APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR		CIRCUIT TYPE: N/R	
PART NUMBER:		PART MANUFACTURER:	DATE CODE: 7907
DEVICE TECHNOLOGY: LSTTL		SCREEN CLASS: JB	COMPLEXITY: 31 G
PACKAGE: CERAMIC DIP		NUMBER OF PINS: 16	
QUANTITY FAILED: 55		TIME TO DETECTION: 0	

FAILURE INDICATOR: SUPPLY CURRENT OUT OF TOLERANCE FAILURE MODE: PACKAGE SEAL
 DEFECT DESCRIPTION: CRACKED DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: CRACKS IN SEAL AREA AND CONTAMINATION.

MFF REPORT NUMBER 598

MFF REPORT DATE: 7908

DATA SOURCE: FE-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COMPARATOR
 PART NUMBER:
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 55

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: JB
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7907
 COMPLEXITY: 31 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: CRACKED

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: CRACKS IN SEAL AREA AND CONTAMINATION.

MFF REPORT NUMBER: 599

MFF REPORT DATE: 7903

DATA SOURCE: FE-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7737
 COMPLEXITY: 6 G

FAILURE INDICATOR: SHORT INPUT
 DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: PACKAGE LID
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: SHORT BETWEEN P9,10. DEVICE REVEALED TO BE DEAD/ COUNTER [54LS90 OR 5490A]. WRONG COVER/WRONG MARKING IS FAILURE DEFECT

MFF REPORT NUMBER: 600

MFF REPORT DATE: 7903

DATA SOURCE: FE-0005 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: PROPEN DELAY OUT OF TOLERANCE
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: N/R
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: MASK DEFECT CAUSES OUT-OF-SPEC PROP DELAY. DATE CODES 7817-7903, GOOD/BAD PRODUCT MIX. SCREEN WITH <1KHZ TEST SIGNAL.

MFF REPORT NUMBER: 601

MFF REPORT DATE: 7903

DATA SOURCE: FE-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER:
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 0

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: ACN
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 20
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 86 G

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: MISSING

FAILURE MODE: N/R
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: SIMULATION REVEALED MISSING CONNECTIONS ON VENDOR SCHEMATIC, SUCH THAT OUTPUT YB [Q1] WOULD NEVER CHANGE STATE.

MFF REPORT NUMBER: 602

MFF REPORT DATE: 7904

DATA SOURCE: FE-1005 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER:
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: ON 7806,7827, 2 DEV. FAILED AT <+50, 1 DEV. FAILED AT +67C. SUSPECT ELFVATED TEMP. INCREASES COUPLING WITHIN PACKAGE.

MFEF REPORT NUMBER: 603

MFEF REPORT DATE: 7905

DATA SOURCE: FF-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: CONVERTER
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 55

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY/3C
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7820
 COMPLEXITY: 6 B

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: PACKAGE LID
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: DEVICES MARKED INCORRECTLY, ACTUALLY CONTAINED 54184J PARTS.

MFEF REPORT NUMBER: 604

MFEF REPORT DATE: 7808

DATA SOURCE: FE-0005 SOURCE: BOARD LVL
 DEVICE FUNCTION: COUNTER
 PART NUMBER:
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 55

DATA-TYPE: N/R APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER:
 SCREEN CLASS: 3B
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 57 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: USER DESIGN MISAPPLICATION.

MFEF REPORT NUMBER: 605

MFEF REPORT DATE: 7902

DATA SOURCE: FE-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER:
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 50

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7809
 COMPLEXITY: 15 G

FAILURE INDICATOR: OUTPUT LEAKAGE
 DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: PACKAGE
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: EXCESSIVE IOI ON P3,6,11,14 AND IOH ON P2,15. DEVICES APPEAR TO BE MISMATCHED 74LS175 LATCHES.

MFEF REPORT NUMBER: 606

MFEF REPORT DATE: 7906

DATA SOURCE: FE-0005 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER:
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 50

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7834
 COMPLEXITY: 20 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: PACKAGE LID
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: PKGS HAD LIDS MARKED "S123", ACTUALLY CONTAINED "S153" DIE.

MFEF REPORT NUMBER: 607

MFEF REPORT DATE: 7904

DATA SOURCE: FE-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COMPARATOR
 PART NUMBER:
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7723
 COMPLEXITY: 33 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: PACKAGE
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: DEVICES TURNED OUT TO BE 54LS85 PARTS WHICH HAD BEEN MISMATCHED.

MPEF REPORT NUMBER 608

MPEF REPORT DATE: 7902

DATA SOURCE: FE-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: CAT1
 PART NUMBER:
 DEVICE TECHNOLOGY: STTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 0

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7821
 COMPLEXITY: 4 G

FAILURE INDICATOR: N/R

DEFECT DESCRIPTION: MISALIGNED/MISPLACED

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: PACKAGE LID
 DEFECT CAUSE: WORKMANSHIP

REMARKS: EXCESSIVE RECEIVING INSPECTION FAILURES REVEALED DEVICES TO BE SCHOTTKY, NOT LOW POWER SCHOTTKY, PARTS.

MPEF REPORT NUMBER 609

MPEF REPORT DATE: 7901

DATA SOURCE: F-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER:
 DEVICE TECHNOLOGY: BIPOLAR (NOC)
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 18

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: LINE DRIVER
 PART MANUFACTURER:
 SCREEN CLASS: JB
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7806
 COMPLEXITY: 28 T

FAILURE INDICATOR: NON-FUNCT IN-OP, CATAS

DEFECT DESCRIPTION: MISALIGNED/MISPLACED

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: PACKAGE
 DEFECT CAUSE: WORKMANSHIP

REMARKS: NONFUNCTIONAL PARTS TESTED OK AS 5432 DEVICES (QUAD POSITIVE-OR GATES).

MPEF REPORT NUMBER 610

MPEF REPORT DATE: 7812

DATA SOURCE: FE-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER:
 DEVICE TECHNOLOGY: STTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 0

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: 7
 PART MANUFACTURER:
 SCREEN CLASS: JB
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7711
 COMPLEXITY: 12 G

FAILURE INDICATOR: N/R

DEFECT DESCRIPTION: MISALIGNED/MISPLACED

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: PACKAGE
 DEFECT CAUSE: WORKMANSHIP

REMARKS: PARTS WERE ACTUALLY 5474 OR 54H74 DEVICES, RATHER THAN SCHOTTKY PARTS.

MPEF REPORT NUMBER 612

MPEF REPORT DATE: 7805

DATA SOURCE: FE-0005 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER:
 DEVICE TECHNOLOGY: BIPOLAR (NOC)
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 6

DATA-TYPE: N/R
 CIRCUIT TYPE: LINE DRIVER
 PART MANUFACTURER:
 SCREEN CLASS: JAN
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7538
 COMPLEXITY: 10 T

FAILURE INDICATOR: N/R

DEFECT DESCRIPTION: BROKEN

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

FAILURE MODE: WIREBOND DIE PAD HEEL
 DEFECT CAUSE: PROCESS FLAW

REMARKS: ALL DEVICES HAD BROKEN WIRE BONDS, HEFL AT DIE PAD. 5 DEV. BROKEN AT PIN 9, 1 AT PIN 6. PROPAGATED BY 38510 TEMP CYCLE.

MPEF REPORT NUMBER 613

MPEF REPORT DATE: 7910

DATA SOURCE: FE-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: CONVERTER
 PART NUMBER:
 DEVICE TECHNOLOGY: BIPOLAR (NOC)
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 0

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: D/A CONVERTER
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7716
 COMPLEXITY: 8 B

FAILURE INDICATOR: IMPROPER OUTPUT

DEFECT DESCRIPTION: MISALIGNED/MISPLACED

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: PACKAGE
 DEFECT CAUSE: WORKMANSHIP

REMARKS: DEVICES MISMARKED, CONTAINED DIFFERENT 8-BIT MULTIPLYING D/A CONVERTER.

MFEF REPORT NUMBER 614

MFEF REPORT DATE: 7901

DATA SOURCE: FE-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER:
 SCREEN CLASS: JB
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: CRACKED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: NUMEROUS CRACKS IN METALIZATION, SOME COMPLETELY THROUGH THE ALUMINUM. SOME LATERAL CRACKING ALSO OCCURRED.

MFEF REPORT NUMBER: 615

MFEF REPORT DATE: 7901

DATA SOURCE: FE-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: B-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: SCRATCH

FAILURE MODE: DIE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: SCRATCHED METALIZATION, CRACKING OF GLASSIVATION, METALIZATION VOID. DEVICES FAILED MIL-STD-883, METHOD 2010.

MFEF REPORT NUMBER: 616

MFEF REPORT DATE: 7806

DATA SOURCE: FE-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER:
 SCREEN CLASS: B-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 36 G

FAILURE INDICATOR: NON-FUNCTION-OP, CATAST
 DEFECT DESCRIPTION: IMPURITIES

FAILURE MODE: GLASSIVATION
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: ONE FLIP-FLOP NONFUNCTIONAL AT 10MHZ DUE TO FLIP-FLOP/CLOCK SHORT. HIGH CURRENT CONSUMPTION DUE TO IMPROPER METALIZATION.

MFEF REPORT NUMBER: 617

MFEF REPORT DATE: 7805

DATA SOURCE: FE-0005 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 0

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: B-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 48 G

FAILURE INDICATOR: NON-FUNCTION-OP, CATAST
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: NUMEROUS DEVICES FAILED LOW TEMP [-55C] SCREENING TESTS, WITH VDD = +2.5V

MFEF REPORT NUMBER: 622

MFEF REPORT DATE: 7806

DATA SOURCE: FE-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER:
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 0

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7749
 COMPLEXITY: 16 G

FAILURE INDICATOR: PROPAG DELAY OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: COMBINATION OF REPETITION RATES < 500KHZ, 100% DUTY CYCLE > 50% GIVES INCREASE IN HI-LO PROP DELAY, 3SP. HI TMP

MFEF REPORT NUMBER: 623

MFEF REPORT DATE: 7811

DATA SOURCE: FE-0005 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER:
 DEVICE TECHNOLOGY: BIPOLAR (VOC)
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 0

DATA-TYPE: N/R
 CIRCUIT TYPE: LINE RECEIVER
 PART MANUFACTURER:
 SCREEN CLASS: B-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 49 T

FAILURE INDICATOR: IMPROPER OUTPUT SWITCHING
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: DATE CODES 7810, 7822A, 7811. HYSTERESIS LIMITS UNPREDICTABLE, CAN APPROACH ZERO, ASSYMMETRICAL, DRIFT RANDOMLY AT ROOM T

MFEF REPORT NUMBER: 627

MFEF REPORT DATE: 7803

DATA SOURCE: FE-0005 SOURCE: COMPONENT LVL
 DEVICE FUNCTION: N/R
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC PPF
 QUANTITY FAILED: 6

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 0 0

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: MISALIGNMENT/MISPLACED

FAILURE MODE: PACKAGE
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: 4 PART TYPES [DC 7635, 7636, 7641] WITH 14- OR 16- LEAD PKGS. HAD PIN MARKING 180 DEG. OUT-OF-PHASE WITH PIN 1.

MFEF REPORT NUMBER: 628

MFEF REPORT DATE: 7802

DATA SOURCE: FE-0005 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: B-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 48 C

FAILURE INDICATOR: FLUCT/OSC OUTPUT
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: DC 7552, 7636. DEVICES BECAME ERRATIC AT TEMP. BETWEEN -30 TO -50 DEG. C.

MFEF REPORT NUMBER: 630

MFEF REPORT DATE: 7803

DATA SOURCE: FE-0005 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: N/P
 PART NUMBER:
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: N/R
 QUANTITY FAILED: 180

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: 883
 NUMBER OF PINS: 9
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7730
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE STRESS

REMARKS: DEFECTIVE OXIDE CAUSES LEAKY CHANNEL TRANSISTORS WHEN SUBJECTED TO HIGH TEMP [80-125C]. ACCENT BY HIGH VCC, VIN VOLTAGE

MFEF REPORT NUMBER: 631

MFEF REPORT DATE: 7710

DATA SOURCE: FE-0005 SOURCE: BOARD LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R
 QUANTITY FAILED: 36

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7346
 COMPLEXITY: 6 C

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: MISALIGNMENT/MISPLACED

FAILURE MODE: PACKAGE
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OPEN-COLLECTOR HEX INVERTER. ANOMALY TESTED OUT AS 7404 DEVICES DUE TO PACKAGE MISMARKING.

MFEF REPORT NUMBER: 632

MFEF REPORT DATE: 7508

DATA SOURCE: FE-0005 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 2

DATA-TYPE: N/R
 CIRCUIT TYPE: 0
 PART MANUFACTURER:
 SCREEN CLASS: JAN
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7139
 COMPLEXITY: 12 G

FAILURE INDICATOR: IMPROPER OUTPUT SWITCHING
 DEFECT DESCRIPTION: PINHOLE

FAILURE MODE: OXIDE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: METALIZATION SHORTS DUE TO OXIDE PI:

MFEF REPORT NUMBER: 633

MFEF REPORT DATE: 7508

DATA SOURCE: FE-0005 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: 0
 PART MANUFACTURER:
 SCREEN CLASS: JAN
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7430
 COMPLEXITY: 12 G

FAILURE INDICATOR: IMPROPER OUTPUT SWITCHING
 DEFECT DESCRIPTION: MISSING

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/A

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OPEN METALIZATION PATH DUE TO MISSING METAL.

MFEF REPORT NUMBER: 634

MFEF REPORT DATE: 7904

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: NOT REPORTED
 DEVICE TECHNOLOGY: N/R
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 0
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7410
 COMPLEXITY: 4 B

FAILURE INDICATOR: SHORT OUTPUT
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: PIN 12 OUTPUT TRANSISTOR SHORTED UNDER OXIDE, C-E, AS A RESULT OF HIGH POSITIVE POTENTIAL (>VCC) EOS.

MFEF REPORT NUMBER: 635

MFEF REPORT DATE: 7904

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 5404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 1

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: NSS

DATE CODE: 7613
 COMPLEXITY: 6 G

FAILURE INDICATOR: SHORT OUTPUT
 DEFECT DESCRIPTION: MELTED-FUSED

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: ALL 6 OUTPUT TRANSISTORS SHORTED UNDER OXIDE, C-E, AND METALIZATION MELTED E-GND, DUE TO HIGH POS. POT. (>VCC) EOS.

MFEF REPORT NUMBER: 636

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0091 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: ANDER
 PART NUMBER: 9304
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC FPK
 QUANTITY FAILED: 0

DATA-TYPE: N/R EVALUATION
 CIRCUIT TYPE: FULL
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 22 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED MISLOCATED WIRE BONDS.

MFEF REPORT NUMBER: 637

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: ADDER
 PART NUMBER: 9304
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC FPK
 QUANTITY FAILED: 9

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: FULL
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 22 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: INADEQUATE

FAILURE MODE: WIREBOND DIF PAD
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EXAMINATION REVEALED INADEQUATE WIRE BONDING.

MFEF REPORT NUMBER: 638

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: ADDER
 PART NUMBER: 9304
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC FPK
 QUANTITY FAILED: 24

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: FULL
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 22 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: IMPURITIES

FAILURE MODE: PACKAGE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED EXTRANEOUS MATTER WITHIN THE PACKAGES.

MFEF REPORT NUMBER: 639

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 93L16
 DEVICE TECHNOLOGY: LTTI
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 58 G

FAILURE INDICATOR: HI LVL OUTPUT CURRENT OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 640

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 93L16
 DEVICE TECHNOLOGY: LTTI
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 58 G

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT VOLTAGE LOW.

MFEF REPORT NUMBER: 641

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 93L16
 DEVICE TECHNOLOGY: LTTI
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 58 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 642

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 93L16
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 6

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 58 G

FAILURE INDICATOR: N/R

DEFECT DESCRIPTION: MISALIGNED/MISPLACED

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: WORKMANSHIP

REMARKS: X-RAY EVALUATION REVEALED MISPLACED WIRE BONDS.

MFEF REPORT NUMBER: 643

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 93L16
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 33

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 58 G

FAILURE INDICATOR: N/R

DEFECT DESCRIPTION: INADEQUATE

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: PROCESS FLAW

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE BONDING.

MFEF REPORT NUMBER: 644

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 8293
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 21

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 43 G

FAILURE INDICATOR: N/R

DEFECT DESCRIPTION: MISALIGNED/MISPLACED

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: WORKMANSHIP

REMARKS: X-RAY EVALUATION REVEALED WIREBOND MISALIGNED.

MFEF REPORT NUMBER: 645

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 8293
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 6

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 43 G

FAILURE INDICATOR: N/R

DEFECT DESCRIPTION: INADEQUATE

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: PROCESS FLAW

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE BONDING.

MFEF REPORT NUMBER: 646

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 8293
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 43 G

FAILURE INDICATOR: N/R

DEFECT DESCRIPTION: IMPURITIES

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: PACKAGE
 DEFECT CAUSE: PROCESS FLAW

REMARKS: X-RAY EVALUATION REVEALED EXTRANEOUS MATERIAL WITHIN PACKAGE.

MFEF REPORT NUMBER: 647

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 5490A
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 68

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: DECADE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 15 G

FAILURE INDICATOR: N/R

DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: WIREBOND DIE PAD

DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED MISALIGNED WIREBONDS.

MFEF REPORT NUMBER: 648

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 5490A
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 69

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: DECADE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 15 G

FAILURE INDICATOR: N/R

DEFECT DESCRIPTION: INADEQUATE

FAILURE MODE: WIREBOND DIE PAD

DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE WIRE BONDING.

MFEF REPORT NUMBER: 649

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 5490A
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: DECADE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 15 G

FAILURE INDICATOR: N/R

DEFECT DESCRIPTION: IMPURITIES

FAILURE MODE: PACKAGE

DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED EXTENSIVE MATERIAL WITHIN THE PACKAGE.

MFEF REPORT NUMBER: 650

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 26L02
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: ADVANCED MICRO DEVICES
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 18 G

FAILURE INDICATOR: N/R

DEFECT DESCRIPTION: INADEQUATE

FAILURE MODE: WIREBOND DIE PAD

DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE WIREBONDS.

MFEF REPORT NUMBER: 651

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 54L73
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 13

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 14 G

FAILURE INDICATOR: N/R

DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: WIREBOND DIE PAD

DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED MISALIGNED WIREBONDS.

MFEF REPORT NUMBER: 652 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001	SOURCE: COMPONENT LEVEL	DATA-TYPE: DEV EVALUATION	APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP		CIRCUIT TYPE: JK	
PART NUMBER: 54L77		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: LTTL		SCREEN CLASS: N/R	COMPLEXITY: 14 C
PACKAGE: HERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 0		TIME TO DETECTION: 0	

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: INADEQUATE

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE WIREBONDS.

MFEF REPORT NUMBER: 653 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001	SOURCE: COMPONENT LEVEL	DATA-TYPE: DEV EVALUATION	APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP		CIRCUIT TYPE: JK	
PART NUMBER: 54L73		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: LTTL		SCREEN CLASS: N/R	COMPLEXITY: 14 C
PACKAGE: HERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 2		TIME TO DETECTION: 0	

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: IMPURITIES

FAILURE MODE: PACKAGE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED EXCESSIVE MATERIAL WITHIN PACKAGE.

MFEF REPORT NUMBER: 654 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001	SOURCE: COMPONENT LEVEL	DATA-TYPE: DEV EVALUATION	APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP		CIRCUIT TYPE: MONOSTABLE	
PART NUMBER: 2602		PART MANUFACTURER: ADVANCED MICRO DEVICES	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: N/R	COMPLEXITY: 18 C
PACKAGE: HERMETIC DIP		NUMBER OF PINS: 16	
QUANTITY FAILED: 2		TIME TO DETECTION: 0	

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: PACKAGE
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED THAT THE PACKAGE CONTAINED THE WRONG PART.

MFEF REPORT NUMBER: 655 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001	SOURCE: COMPONENT LEVEL	DATA-TYPE: DEV EVALUATION	APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP		CIRCUIT TYPE: MONOSTABLE	
PART NUMBER: 2602		PART MANUFACTURER: ADVANCED MICRO DEVICES	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: N/R	COMPLEXITY: 18 C
PACKAGE: HERMETIC DIP		NUMBER OF PINS: 16	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: INADEQUATE

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE WIREBONDS.

MFEF REPORT NUMBER: 656 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001	SOURCE: COMPONENT LEVEL	DATA-TYPE: DEV EVALUATION	APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP		CIRCUIT TYPE: MONOSTABLE	
PART NUMBER: 2602		PART MANUFACTURER: ADVANCED MICRO DEVICES	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: N/R	COMPLEXITY: 18 C
PACKAGE: HERMETIC DIP		NUMBER OF PINS: 16	
QUANTITY FAILED: 11		TIME TO DETECTION: 0	

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: IMPURITIES

FAILURE MODE: PACKAGE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED EXCESSIVE MATERIAL WITHIN PACKAGE.

MFEF REPORT NUMBER: 652

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 9LS109
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: INADEQUATE

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE WIREBONDING.

MFEF REPORT NUMBER: 653

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 54109
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT VOLTAGE HIGH.

MFEF REPORT NUMBER: 659

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 54109
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 660

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 54109
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: PACKAGE
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED PACKAGE CONTAINED THE WRONG PART.

MFEF REPORT NUMBER: 661

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54H55
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: HERMETIC FPK
 QUANTITY FAILED: 17

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED MISALIGNED WIREBONDS.

MTEF REPORT NUMBER: 662

MTEF REPORT DATE: 7512

DATA SOURCE: PC-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54H55
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
 SCREEN CLASS: N/R COMPLEXITY: 3 C
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: INADEQUATE

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE WIREBONDS.

MTEF REPORT NUMBER: 663

MTEF REPORT DATE: 7512

DATA SOURCE: PC-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54H55
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
 SCREEN CLASS: N/R COMPLEXITY: 3 C
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: IMPURITIES

FAILURE MODE: PACKAGE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED EXTRANEIOUS MATERIAL WITHIN PACKAGE.

MTEF REPORT NUMBER: 664

MTEF REPORT DATE: 7512

DATA SOURCE: PC-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54H00
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS DATE CODE: 0
 SCREEN CLASS: N/R COMPLEXITY: 4 C
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: IMPURITIES

FAILURE MODE: PACKAGE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED EXTRANEIOUS MATERIAL WITHIN PACKAGE.

MTEF REPORT NUMBER: 665

MTEF REPORT DATE: 7512

DATA SOURCE: PC-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54H10
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS DATE CODE: 0
 SCREEN CLASS: N/R COMPLEXITY: 3 C
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED MISALIGNED WIREBONDS.

MTEF REPORT NUMBER: 666

MTEF REPORT DATE: 7512

DATA SOURCE: PC-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 576
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ANIMOLA SEMI DATE CODE: 0
 SCREEN CLASS: N/R COMPLEXITY: 4 C
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT LEAKAGE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 667

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 576
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
 SCREEN CLASS: N/R COMPLEXITY: 2 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT CIRCUIT
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 668

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 576
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
 SCREEN CLASS: N/R COMPLEXITY: 2 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 669

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 576
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
 SCREEN CLASS: N/R COMPLEXITY: 2 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED MISALIGNED WIREBONDS.

MFEF REPORT NUMBER: 670

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 576
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 11

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
 SCREEN CLASS: N/R COMPLEXITY: 2 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: INADEQUATE

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE WIREBONDS.

MFEF REPORT NUMBER: 671

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 576
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 26

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
 SCREEN CLASS: N/R COMPLEXITY: 2 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: IMPURITIES

FAILURE MODE: PACKAGE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED EXTRANEIOUS MATERIAL WITHIN PACKAGE.

MFEF REPORT NUMBER: 672

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5402
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: IMPURITIES

FAILURE MODE: PACKAGE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/P
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED EXTRANEIOUS MATERIAL WITHIN PACKAGE.

MFEF REPORT NUMBER: 673

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5402
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/P
 ACTIVATING STRESS B: N/R

REMARKS: VOLTAGE OUTPUT LOW.

MFEF REPORT NUMBER: 674

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5402
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/P
 ACTIVATING STRESS B: N/R

REMARKS: VOLTAGE OUTPUT HIGH.

MFEF REPORT NUMBER: 675

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5402
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 14

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: MISALIGNED/MISPLACED

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED MISALIGNED WIREBONDS.

MFEF REPORT NUMBER: 676

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5402
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 22

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: INADEQUATE

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE WIREBONDS.

MFEF REPORT NUMBER: 677

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 5404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: INADEQUATE

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE WIREBONDS.

MFEF REPORT NUMBER: 678

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 5404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: IMPURITIES

FAILURE MODE: PACKAGE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED EXCESSIVE MATERIAL WITHIN PACKAGE.

MFEF REPORT NUMBER: 679

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 93L09
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUTPUT VOLTAGE HIGH.

MFEF REPORT NUMBER: 680

MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 8273
 DEVICE TECHNOLOGY: ECL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: DEV EVALUATION
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 63 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: BROKEN

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 681

MFEF REPORT DATE: 7701

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 11C05
 DEVICE TECHNOLOGY: ECL
 PACKAGE: HERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: 0
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7519
 COMPLEXITY: 0 0

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
 ACTIVATING STRESS B: N/R

REMARKS: THERMAL SHOCK/TEMP. CYCLE TEST SEQUENCE PRODUCED FINE LEAK TEST HERMETICITY FAILURE.

MFEF REPORT NUMBER: 683

MFEF REPORT DATE: 7701

DATA SOURCE: PM-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 10164
 DEVICE TECHNOLOGY: ECL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 0
 SCREEN CLASS: 0 COMPLEXITY: 12 G
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: FAULT (IOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
 ACTIVATING STRESS B: N/R

REMARKS: THERMAL SHOCK/TEMPERATURE CYCLE TEST SEQUENCE PRODUCED FIELD ASX TEST FAILURE.

MFEF REPORT NUMBER: 684

MFEF REPORT DATE: 7701

DATA SOURCE: PM-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 10103
 DEVICE TECHNOLOGY: ECL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 0
 SCREEN CLASS: 1 COMPLEXITY: 4 G
 NUMBER OF PINS: 15
 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: FAULT (IOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: MECHANICAL STRESS
 ACTIVATING STRESS B: N/R

REMARKS: MECH SHOCK/VIBREQ/CONSTANT ACCELERATION TEST SEQUENCE CAUSED HERMETICITY TEST FAILURE.

MFEF REPORT NUMBER: 685

MFEF REPORT DATE: 7701

DATA SOURCE: PM-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 10132
 DEVICE TECHNOLOGY: ECL
 PACKAGE: P/R DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 0
 SCREEN CLASS: 0 COMPLEXITY: 10 G
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: FAULT (IOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: MECHANICAL STRESS
 ACTIVATING STRESS B: N/R

REMARKS: MECHSHK/VIBREQ/CONST. ACCEL. TEST SEQUENCE CAUSED HERMETICITY TEST FAILURE.

MFEF REPORT NUMBER: 686

MFEF REPORT DATE: 7701

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4002
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 12

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7235
 SCREEN CLASS: D-1 COMPLEXITY: 0
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: HUMIDITY
 ACTIVATING STRESS B: N/R

REMARKS: 85C/85RH. FAIL. = 500 HRS [2], 1000 [1], 1400 [3], 1700 [1], 2000 [2], 4000 [3], DUE TO VIBRATION & HUMIDITY ("0" & "1" LEV)

MFEF REPORT NUMBER: 687

MFEF REPORT DATE: 7601

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4002A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA DATE CODE: 0
 SCREEN CLASS: 0 COMPLEXITY: 2 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: BROKEN

FAILURE MODE: PACKAGE SEAL FRAME/EXTERNAL LEADS
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
 ACTIVATING STRESS B: N/R

REMARKS: FAILED AFTER 17 TEMP CYCLES (-55/+125C). ADHERENCE OF MOLYS. PAD TO LEAD DEGRADED TO INITIALLY WEAK BOND.

MEFF REPORT NUMBER: 689

MEFF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4002A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/META DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 6905
 COMPLEXITY: 2 G

FAILURE INDICATOR: OUTPUT VOLTAGE OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
 ACTIVATING STRESS B: N/R

REMARKS: FAILED AFTER 105 THERMAL SHOCK CYC. [-65/+150] @ 10 HIGH V-OUT "0"-LEVEL VOLTAGE.

MEFF REPORT NUMBER: 689

MEFF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4002A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/META DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
 ACTIVATING STRESS B: N/R

REMARKS: FAILED FINE LEAF TEST AFTER 105 THERMAL SHOCK CYCLES [-65/+150C], BUT ALL DC ELECTRICALS OK.

MEFF REPORT NUMBER: 690

MEFF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4002A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: SILICONE DIP
 QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7203
 COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: HUMIDITY
 ACTIVATING STRESS B: N/R

REMARKS: 350/8500 TEST. FAIL. @ 100 HRS [1], 500 [3], 1000 [1], 1400 [2], 4000 [2], 5600 [1], HIGH V-OUT "1" & I-TH "0" & "1".

MEFF REPORT NUMBER: 691

MEFF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4002A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/META DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SOLID STATE SCIENTIFIC
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7207
 COMPLEXITY: 2 G

FAILURE INDICATOR: LEAKAGE
 DEFECT DESCRIPTION: N/A

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: FAILED BIAS TEMP. CYC. [-55/+125C] AT 510 HRS [1] & 832 HRS [1] DUE TO HIGH I-TH "0" & "1" THRESHOLD DRAIN CURRENTS.

MEFF REPORT NUMBER: 692

MEFF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4002A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/META DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SOLITRON DEVICES
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7214
 COMPLEXITY: 2 G

FAILURE INDICATOR: LEAKAGE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: FAILED BIAS TEMP. CYC. [-55/+125C] AT 510 HRS [1] & 1010 HRS [1] DUE TO HI I-TH "0" & "1" THRESHOLD DRAIN CURRENTS.

MFEF REPORT NUMBER: 693

MFEF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4002A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SOLITRON DEVICES
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7214
 COMPLEXITY: 2 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: CRACKED

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
 ACTIVATING STRESS B: N/R

REMARKS: 1 FINE LK FAILURE, 4 GROSS LK FAILURES. GROSS LK FAILURES REVEALED HAIRLINE CRACKS IN CERAMIC BETW. 2 ADJ. LD FRAMF PKG PINS

MFEF REPORT NUMBER 694

MFEF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4002A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SOLITRON DEVICES
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7214
 COMPLEXITY: 2 G

FAILURE INDICATOR: LOW LVL OUTPUT CURRENT OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: FAILED AFTER 417 CYCLES OF THERMAL SHOCK [-65/+150C] DUE TO HIGH I-THRESHOLD "0" LEVEL DRAIN CURRENT.

MFEF REPORT NUMBER: 695

MFEF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4002A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 12

DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SOLITRON DEVICES
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7214
 COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: 12 OF 17 DEVICES FAILED INITIAL D-C. PARAMETER TEST DUE PREDOMINANTLY TO OUT-OF-SPEC V-OUT [LO] & I-TH ["1" LEVEL].

MFEF REPORT NUMBER: 696

MFEF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4002A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SOLITRON DEVICES
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7214
 COMPLEXITY: 2 G

FAILURE INDICATOR: LOW LVL OUTPUT CURRENT OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: HUMIDITY
 ACTIVATING STRESS B: N/R

REMARKS: FAILED 85C/85RH AFTER 100 HRS [1], 100C [2], 280C [1], & 730C [1] DUE PREDOMINANTLY TO OUT-OF-SPEC I-TH "0" LEVEL.

MFEF REPORT NUMBER: 697

MFEF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4002A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: STFP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: HARRIS SEMI
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 512

DATE CODE: 7314
 COMPLEXITY: 2 G

FAILURE INDICATOR: LOW LVL OUTPUT CURRENT OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: FAILED STATIC B-I AT 150C, DUE TO HIGH "0"-LEVEL THRESHOLD DRAIN CURRENT.

MFEF REPORT NUMBER: 698

MFEF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4002A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 168

APPLICATION ENV: N/R

DATE CODE: 6939
 COMPLEXITY: 2 G

FAILURE INDICATOR: HI LVL OUTPUT CURRENT OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: FAILED AT +300C DUE TO HIGH "1"-LEVEL THRESHOLD DRAIN CURRENT.

MFEF REPORT NUMBER: 699

MFEF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4002A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 6

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 6926
 COMPLEXITY: 2 G

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE STRESS

REMARKS: N-CHAN. V-TH. DEGRAD. FAILED AT 48 HRS [1 DEV/-100C], 96 [1/100C], 144 [1/125C], 1240 [1/225C], 1264 [2/225C].

MFEF REPORT NUMBER: 700

MFEF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4002A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 2

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 6926
 COMPLEXITY: 2 G

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE STRESS

REMARKS: P-CHAN. V-TH. DEGRAD. FAILED AT 209 HRS [1 DEV/+125C] AND 1144 HRS [1 DEV/+175C].

MFEF REPORT NUMBER: 701

MFEF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4002A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 4

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SOLID STATE SCIENTIFIC
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7207
 COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: EXPOSED

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: ELECTROLYSIS

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE STRESS

REMARKS: "1" & "0" 1-TH. LEVELS OUT-OF-SPEC. FAILED AT 346 HRS [2 DEV/150C], 444 [1/175C] & 492 [1/175C]. EXPOSED P-CHANNELS.

MFEF REPORT NUMBER: 702

MFEF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4002A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 3

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: SOLITRON DEVICES
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7214
 COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE STRESS

REMARKS: FAILED AT 390 HRS [1 DEV/+150C], 492 [1/175C] & 1019 [1/175C]. DUE TO OUT-OF-SPEC 1-TH "0" & "1" LEVEL DRAIN CURRENTS.

MFEF REPORT NUMBER: 703

MFEF REPORT DATE: 7503

DATA SOURCE: ML-0001 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: SNC54121J
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: REL PROD DEMO APPLICATION ENV: ML
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: JB
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 8 G

FAILURE INDICATOR: SHORT OUTPUT
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: SURFACE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: AT +90C, Q OUTPUT PULSE STARTED TO BREAK UP. AT +94C PULSE OUTPUT DECREASED, THEN DISAPPEARED. OUTPUT SHORTED TO GROUND.

MFEF REPORT NUMBER: 705

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74177
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 34 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 706

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74177
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 34 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 707

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74177
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 34 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 708

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74177
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 34 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 709

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74177
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7617
COMPLEXITY: 34 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 710

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74177
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7617
COMPLEXITY: 34 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 711

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74177
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 34 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 712

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: ADDER
PART NUMBER: 7483
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: FULL
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 36 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 910 TESTED.

MFEF REPORT NUMBER: 713

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: ADDER
PART NUMBER: 7483
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: FULL
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 36 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 910 TESTED

MFEF REPORT NUMBER: 714

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: ADDER
PART NUMBER: 7483
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: FULL
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 36 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1201 TESTED.

MFEF REPORT NUMBER: 715

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: ADDER
PART NUMBER: 7483
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: FULL
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 36 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1201 TESTED.

MFEF REPORT NUMBER: 716

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: ADDER
PART NUMBER: 7483
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: FULL
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 36 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1201 TESTED.

MFEF REPORT NUMBER: 717

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: ADDER
PART NUMBER: 7483
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: FULL
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 36 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 718

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: ADDER
PART NUMBER: 7483
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: FULL
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 36 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 719

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: ADDER
 PART NUMBER: 7483
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: FULL
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 36 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 720

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: ADDER
 PART NUMBER: 7483
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: FULL
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 36 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 155 TESTED.

MFEF REPORT NUMBER: 721

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: ADDER
 PART NUMBER: 7483
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 36

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: FULL
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 36 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1354 TESTED.

MFEF REPORT NUMBER: 722

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 74S40
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/P

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1007 TESTED.

MFEF REPORT NUMBER: 723

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 74S40
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 700 TESTED.

MFEF REPORT NUMBER: 724

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 74S40
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7602
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 725

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 74S40
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7606
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 726

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 74S40
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7610
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 727

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 8T97
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7608
COMPLEXITY: 8 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 728

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 8T98
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7615
COMPLEXITY: 8 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 729

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 74H40
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 2 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 730

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 74LS125
 DEVICE TECHNOLOGY: LS-TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7523
 COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 731

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 8095
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 7 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 732

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 8097
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7613
 COMPLEXITY: 8 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 733

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 8097
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7619
 COMPLEXITY: 8 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 734

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 8097
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7634
 COMPLEXITY: 8 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 735

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 8098
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 8 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 100 TESTED.

MFEF REPORT NUMBER: 736

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 8098
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 8 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 220 TESTED.

MFEF REPORT NUMBER: 737

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 8098
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7608
 COMPLEXITY: 8 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACT: STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 738

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 8098
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7608
 COMPLEXITY: 8 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 739

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 8098
DEVICE TECHNOLOGY: TTL
PACKAGE: EPOXY DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: NATIONAL SEMI
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7616
COMPLEXITY: 8 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 740

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 8098
DEVICE TECHNOLOGY: TTL
PACKAGE: EPOXY DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: NATIONAL SEMI
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7616
COMPLEXITY: 8 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 741

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 8098
DEVICE TECHNOLOGY: TTL
PACKAGE: EPOXY DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: NATIONAL SEMI
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7623
COMPLEXITY: 8 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 742

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 74125
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 61

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 743

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 74125
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 744

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 74125
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 79

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 745

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 74126
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 281 TESTED.

MFEF REPORT NUMBER: 746

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 74126
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 200 TESTED.

MFEF REPORT NUMBER: 747

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 74126
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 0

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 500 TESTED.

MFEF REPORT NUMBER: 748

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 74126
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 749

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 7428
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7531
COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 750

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 7428
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7531
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 751

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 7428
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7545
COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 752

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 7428
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7545
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 753

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 7433
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7419
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER: 754

MFEE REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 7433
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 7419
 COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER: 755

MFEE REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 7433
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/P
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/P
 DATE CODE: 7406
 COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER: 756

MFEE REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 7437
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER: 757

MFEE REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 7437
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER: 758

MFEE REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 7437
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 7615
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 759

MFFF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 7437
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 0

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7623
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 760

MFFF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 7437
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 14

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7628
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 761

MFFF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 7437
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7637
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER. 762

MFFF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 7437
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFFF REPORT NUMBER: 763

MFFF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: BUFFER
 PART NUMBER: 7437
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7641
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 764

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 7438
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 6000 TESTED.

MFEF REPORT NUMBER: 765

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 7438
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 35

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 6000 TESTED.

MFEF REPORT NUMBER: 766

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 7438
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1200 TESTED.

MFEF REPORT NUMBER: 767

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 7438
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1200 TESTED.

MFEF REPORT NUMBER: 768

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 7438
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 73

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 769

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 7438
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7641
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 770

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 7438
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 771

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 7438
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1020 TESTED.

MFEF REPORT NUMBER: 772

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 7438
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1020 TESTED.

MFEF REPORT NUMBER: 773

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 7438
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 520 TESTED.

MFEF REPORT NUMBER: 774

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 7440
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 2 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 17,153 TESTED.

MFEF REPORT NUMBER: 775

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 7440
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 219

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 17,153 TESTED.

MFEF REPORT NUMBER: 776

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 7440
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 91

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 2 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 8384 TESTED.

MFEF REPORT NUMBER: 777

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER: 7440
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 69

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 8384 TESTED.

MFEF REPORT NUMBER: 778

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COMPARATOR
PART NUMBER: 74585
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7614
COMPLEXITY: 31 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 779

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COMPARATOR
 PART NUMBER: 74LS85
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7528
 COMPLEXITY: 31 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 780

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COMPARATOR
 PART NUMBER: 74LS85
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7615
 COMPLEXITY: 31 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 781

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COMPARATOR
 PART NUMBER: 8160
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7609
 COMPLEXITY: 9 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 782

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COMPARATOR
 PART NUMBER: 8160
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7613
 COMPLEXITY: 9 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 783

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: 75110
 DEVICE TECHNOLOGY: BIPOLAR (NOC)
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: LINE DRIVER
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 784

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INTERFACE
 PART NUMBER: 75110
 DEVICE TECHNOLOGY: BIPOLAR (NOC)
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: LINE DRIVER
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 785

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COMPARATOR
 PART NUMBER: 7485
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 31 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 127 TESTED. OF THE REMAINING 54 DEV. TESTED [7603] THERE WERE ZERO FAILURES.

MFEF REPORT NUMBER: 786

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COMPARATOR
 PART NUMBER: 7485
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 31 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 787

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COMPARATOR
 PART NUMBER: 7485
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7615
 COMPLEXITY: 31 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 788

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COMPARATOR
 PART NUMBER: 7485
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7615
 COMPLEXITY: 31 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 300 TESTED. OF THE REMAINING 246 TESTED [7608] THERE WERE ZERO FAILURES.

MFEF REPORT NUMBER: 789

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COMPARATOR
PART NUMBER: 8324/9324
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 32 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 700 TESTED.

MFEF REPORT NUMBER: 790

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COMPARATOR
PART NUMBER: 8324/9324
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 32 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 700 TESTED.

MFEF REPORT NUMBER: 791

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COMPARATOR
PART NUMBER: 8324/9324
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 32 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2473 TESTED.

MFEF REPORT NUMBER: 792

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COMPARATOR
PART NUMBER: 8324/9324
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 115

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 32 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2873 TESTED.

MFEF REPORT NUMBER: 793

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COMPARATOR
PART NUMBER: 8324/9324
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 32 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 111 TESTED.

MFEF REPORT NUMBER: 794

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
 PART NUMBER: 8324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 0
 DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
 PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
 QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
 ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 111 TESTED.

MFEF REPORT NUMBER: 795

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
 PART NUMBER: 8324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 7544
 DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
 PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
 QUANTITY FAILED: 20 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/P
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
 ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 796

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
 PART NUMBER: 8324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 7549
 DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
 PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
 QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
 ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 797

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
 PART NUMBER: 8324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 7619
 DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
 PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
 QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
 ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 799

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
 PART NUMBER: 8324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 7619
 DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
 PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
 QUANTITY FAILED: 13 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
 ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
 PART NUMBER: 8324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 7626
 DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
 PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
 QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 800

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
 PART NUMBER: 8324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 7626
 DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
 PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
 QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 801

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
 PART NUMBER: 8324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 7621
 DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
 PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
 QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 802

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
 PART NUMBER: 8324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 7630
 DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
 PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
 QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 803

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
 PART NUMBER: 74LS193 PART MANUFACTURER: VARIOUS DATE CODE: 7617
 DEVICE TECHNOLOGY: 14TTI SCREEN CLASS: D-1 COMPLEXITY: 48 G
 PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
 QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 804

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74LS193
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7617
 COMPLEXITY: 48 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 805

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74LS193
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7624
 COMPLEXITY: 48 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 806

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74LS99
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: DECADE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7615
 COMPLEXITY: 15 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 92 TESTED.

MFEF REPORT NUMBER: 807

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74LS99
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: DECADE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7615
 COMPLEXITY: 15 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 158 TESTED.

MFEF REPORT NUMBER: 808

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74LS93
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7619
 COMPLEXITY: 25 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFFF REPORT NUMBER: 809

MFFF REPORT DATE: 7601

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74161
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 544

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 57 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFFF REPORT NUMBER: 810

MFFF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74161
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 57 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFFF REPORT NUMBER: 811

MFFF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74161
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 57 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFFF REPORT NUMBER: 812

MFFF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74161
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 62

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 57 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFFF REPORT NUMBER: 813

MFFF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74161
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 57 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1504 TESTED.

MFFR REPORT NUMBER: 814

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74161
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 57 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1504 TESTED.

MFFR REPORT NUMBER 815

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74161
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 57 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1162 TESTED.

MFFR REPORT NUMBER: 816

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74161
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 25

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 57 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1162 TESTED.

MFFR REPORT NUMBER: 817

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74161
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 57 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1162 TESTED.

MFEF REPORT NUMBER: 818

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74161
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 57 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MELF REPORT NUMBER: 819

MELF REPORT DATE: 7611

DATA SOURCE: PI-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74161
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 57 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MELF REPORT NUMBER: 820

MELF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74192
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BCD
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7529
 COMPLEXITY: 50 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MELF REPORT NUMBER: 821

MELF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74192
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BCD
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7529
 COMPLEXITY: 50 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MELF REPORT NUMBER: 822

MELF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74192
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BCD
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7620
 COMPLEXITY: 50 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MELF REPORT NUMBER: 823

MELF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74192
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 35

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BCD
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7620
 COMPLEXITY: 50 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 824

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74192
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 75

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BCD
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7625
COMPLEXITY: 50 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 825

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74192
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BCD
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 50 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 826

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74192
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BCD
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 50 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 827

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74192
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BCD
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7629
COMPLEXITY: 50 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 828

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74192
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 17

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BCD
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7629
COMPLEXITY: 50 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 829

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74192
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BCD
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7637
 COMPLEXITY: 50 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 830

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74192
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BCD
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7637
 COMPLEXITY: 50 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 831

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74193
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 48 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1520 TESTED.

MFEF REPORT NUMBER: 832

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74193
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 48 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1520 TESTED.

MFEF REPORT NUMBER: 833

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74193
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 48 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3195 TESTED.

MFEP REPORT NUMBER: 834

MFEP REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74193
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 48 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3195 TESTED.

MFEP REPORT NUMBER: 835

MFEP REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74193
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 15

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 48 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3195 TESTED.

MFEP REPORT NUMBER: 836

MFEP REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74193
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7606
 COMPLEXITY: 48 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEP REPORT NUMBER: 837

MFEP REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74193
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 48 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 474 TESTED.

MFEP REPORT NUMBER: 838

MFEP REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74193
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 48 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 439 TESTED.

MFEF REPORT NUMBER: 839

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74193
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 48 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 439 TESTED.

MFEF REPORT NUMBER: 840

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74193
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: F/R

DATE CODE: 7614
COMPLEXITY: 48 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 841

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74193
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 69

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7614
COMPLEXITY: 48 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 842

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74193
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 24

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7614
COMPLEXITY: 48 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 843

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74193
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7605
COMPLEXITY: 48 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 844

MFEF REPORT DATE 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74193
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7616
COMPLEXITY: 48 C

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 845

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74193
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7616
COMPLEXITY: 48 C

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 846

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74193
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 14

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7616
COMPLEXITY: 48 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 847

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74193
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 48 C

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 848

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 74193
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 16

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 48 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 849

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74193
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7627
 COMPLEXITY: 48 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/P
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 850

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74193
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 21

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7627
 COMPLEXITY: 48 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 851

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74193
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7633
 COMPLEXITY: 48 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 852

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74193
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7633
 COMPLEXITY: 48 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 853

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74193
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 25

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7633
 COMPLEXITY: 48 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 854 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER		CIRCUIT TYPE: BINARY	
PART NUMBER: 74193		PART MANUFACTURER: VARIOUS	DATE CODE: 7641
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 16	
QUANTITY FAILED: 2		TIME TO DETECTION: 0	

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

REMARKS:

MFEF REPORT NUMBER: 855 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER		CIRCUIT TYPE: BINARY	
PART NUMBER: 741-3		PART MANUFACTURER: VARIOUS	DATE CODE: 7641
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: I-1	COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 16	
QUANTITY FAILED: 2		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

REMARKS:

MFEF REPORT NUMBER: 856 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER		CIRCUIT TYPE: BINARY	
PART NUMBER: 74193		PART MANUFACTURER: VARIOUS	DATE CODE: 7605
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 16	
QUANTITY FAILED: 2		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

REMARKS:

MFEF REPORT NUMBER: 857 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER		CIRCUIT TYPE: BINARY	
PART NUMBER: 74193		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 16	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

REMARKS: OUT OF 491 TESTED.

MFEF REPORT NUMBER: 858 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER		CIRCUIT TYPE: BINARY	
PART NUMBER: 74193		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 16	
QUANTITY FAILED: 2		TIME TO DETECTION: 0	

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

REMARKS: OUT OF 2094 TESTED.

MFEF REPORT NUMBER: 7605

MFEF REPORT DATE: 7605

DATA SOURCE: PI-002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74193
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 48 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2694 TESTED.

MFEF REPORT NUMBER: 7606

MFEF REPORT DATE: 7605

DATA SOURCE: PI-002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74193
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 48 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2096 TESTED.

MFEF REPORT NUMBER: 7607

MFEF REPORT DATE: 7605

DATA SOURCE: PI-002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74193
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 48 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED.

MFEF REPORT NUMBER: 7612

MFEF REPORT DATE: 7612

DATA SOURCE: PI-002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74193
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 48 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 262 TESTED.

MFEF REPORT NUMBER: 7613

MFEF REPORT DATE: 7610

DATA SOURCE: PI-002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74193
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7625
 COMPLEXITY: 48 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 864

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74193
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7625
 COMPLEXITY: 48 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 865

MFEF REPORT DATE: 7673

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74197
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7450
 COMPLEXITY: 34 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 866

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74197
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 34 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 867

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74197
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7619
 COMPLEXITY: 34 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 868

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 74197
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7619
 COMPLEXITY: 34 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: 7604

MEEF REPORT DATE: 7610

DATA SOURCE: PL-002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 7619
 DEVICE TECHNOLOGY: TTL
 PACKAGE: MONHEMATIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/P
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7619
 COMPLEXITY: 34 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: 7604

MEEF REPORT DATE: 7604

DATA SOURCE: PL-002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 7619
 DEVICE TECHNOLOGY: TTL
 PACKAGE: MONHEMATIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: DECADE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7541
 COMPLEXITY: 15 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: 7602

MEEF REPORT DATE: 7604

DATA SOURCE: PL-002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 7602
 DEVICE TECHNOLOGY: TTL
 PACKAGE: MONHEMATIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: DECADE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7602
 COMPLEXITY: 15 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: 7602

MEEF REPORT DATE: 7606

DATA SOURCE: PL-002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 7602
 DEVICE TECHNOLOGY: TTL
 PACKAGE: MONHEMATIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: DECADE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7602
 COMPLEXITY: 15 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: 7610

MEEF REPORT DATE: 7610

DATA SOURCE: PL-002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 7610
 DEVICE TECHNOLOGY: TTL
 PACKAGE: MONHEMATIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: DECADE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7628
 COMPLEXITY: 15 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 874 MFEF REPORT DATE: 7610
 DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 DEVICE FUNCTION: COUNTER CIRCUIT TYPE: DECADE
 PART NUMBER: 7490 PART MANUFACTURER: VARIOUS DATE CODE: 7628
 DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
 PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
 QUANTITY FAILED: 1 TIME TO DETECTION: 0
 FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
 ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 875 MFEF REPORT DATE: 7603
 DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
 PART NUMBER: 7492 PART MANUFACTURER: VARIOUS DATE CODE: 0
 DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
 PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
 QUANTITY FAILED: 6 TIME TO DETECTION: 0
 FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
 ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 198 TESTED.

MFEF REPORT NUMBER: 876 MFEF REPORT DATE: 7612
 DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
 PART NUMBER: 7492 PART MANUFACTURER: VARIOUS DATE CODE: 0
 DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
 PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
 QUANTITY FAILED: 1 TIME TO DETECTION: 0
 FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
 ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 380 TESTED.

MFEF REPORT NUMBER: 877 MFEF REPORT DATE: 7612
 DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
 PART NUMBER: 7492 PART MANUFACTURER: VARIOUS DATE CODE: 0
 DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
 PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
 QUANTITY FAILED: 1 TIME TO DETECTION: 0
 FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
 ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 380 TESTED.

MFEF REPORT NUMBER: 878 MFEF REPORT DATE: 7606
 DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
 PART NUMBER: 7492 PART MANUFACTURER: VARIOUS DATE CODE: 0
 DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
 PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
 QUANTITY FAILED: 2 TIME TO DETECTION: 0
 FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
 ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 879

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 7492
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7615
COMPLEXITY: 26 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/A

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 880

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 7492
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7615
COMPLEXITY: 26 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 881

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 7492
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7615
COMPLEXITY: 26 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 882

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 7492
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7623
COMPLEXITY: 26 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 883

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 7493
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7549
COMPLEXITY: 25 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFFF REPORT NUMBER 884

MFFF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 7493
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7549
COMPLEXITY: 25 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFFF REPORT NUMBER 885

MFFF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 7493
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7603
COMPLEXITY: 25 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFFF REPORT NUMBER 886

MFFF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 7493
DEVICE TECHNOLOGY: L
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7616
COMPLEXITY: 25 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFFF REPORT NUMBER 887

MFFF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 7493
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7616
COMPLEXITY: 25 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFFF REPORT NUMBER 888

MFFF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 7493
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7616
COMPLEXITY: 25 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFF REPORT NUMBER: 889

MFF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 7493
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7618
COMPLEXITY: 25 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/P

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFF REPORT NUMBER: 890

MFF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 7493
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7618
COMPLEXITY: 25 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFF REPORT NUMBER: 891

MFF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 7493
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 28

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7618
COMPLEXITY: 25 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFF REPORT NUMBER: 892

MFF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 7493
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7313
COMPLEXITY: 25 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFF REPORT NUMBER: 893

MFF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: COUNTER
PART NUMBER: 7493
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BINARY
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7633
COMPLEXITY: 25 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 894

MFEF REPORT DATE: 7612

DATA SOURCE: PI-C 02 SOURCE COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 7493
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7633
 COMPLEXITY: 25 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 895

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 7493
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7633
 COMPLEXITY: 25 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 896

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 7493
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7636
 COMPLEXITY: 25 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 897

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 7493
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: C
 COMPLEXITY: 25 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 898

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 7493
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: C
 COMPLEXITY: 25 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2499 TESTED.

MEFF REPORT NUMBER: 899

MEFF REPORT DATE: 7604

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER		CIRCUIT TYPE: BINARY	
PART NUMBER: 7493		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	
FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE		FAILURE MODE: N/R	
DEFECT DESCRIPTION: N/R		DEFECT CAUSE: N/R	
ACTIVATING STRESS A: N/R			
ACTIVATING STRESS B: N/R			

REMARKS: OUT OF 192 TESTED

MEFF REPORT NUMBER: 900

MEFF REPORT DATE: 7604

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER		CIRCUIT TYPE: BINARY	
PART NUMBER: 7493		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	
FAILURE INDICATOR: FUNCTIONAL ANOMALY		FAILURE MODE: N/R	
DEFECT DESCRIPTION: N/R		DEFECT CAUSE: N/R	
ACTIVATING STRESS A: N/R			
ACTIVATING STRESS B: N/R			

REMARKS: OUT OF 476 TESTED

MEFF REPORT NUMBER: 901

MEFF REPORT DATE: 7604

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER		CIRCUIT TYPE: BINARY	
PART NUMBER: 7493		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 5		TIME TO DETECTION: 0	
FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE		FAILURE MODE: N/R	
DEFECT DESCRIPTION: N/R		DEFECT CAUSE: N/R	
ACTIVATING STRESS A: N/R			
ACTIVATING STRESS B: N/R			

REMARKS: OUT OF 470 TESTED

MEFF REPORT NUMBER: 902

MEFF REPORT DATE: 7605

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER		CIRCUIT TYPE: BINARY	
PART NUMBER: 7493		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 2		TIME TO DETECTION: 0	
FAILURE INDICATOR: FUNCTIONAL ANOMALY		FAILURE MODE: N/R	
DEFECT DESCRIPTION: N/R		DEFECT CAUSE: N/R	
ACTIVATING STRESS A: N/R			
ACTIVATING STRESS B: N/R			

REMARKS: OUT OF 3000 TESTED

MEFF REPORT NUMBER: 903

MEFF REPORT DATE: 7605

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER		CIRCUIT TYPE: BINARY	
PART NUMBER: 7493		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 3		TIME TO DETECTION: 0	
FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE		FAILURE MODE: N/R	
DEFECT DESCRIPTION: N/R		DEFECT CAUSE: N/R	
ACTIVATING STRESS A: N/R			
ACTIVATING STRESS B: N/R			

REMARKS: OUT OF 3000 TESTED

MFEF REPORT NUMBER: 904 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER		CIRCUIT TYPE: BINARY	
PART NUMBER: 7493		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 25 C
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 3		TIME TO DETECTION: 0	

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2300 TESTED.

MFEF REPORT NUMBER: 905 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER		CIRCUIT TYPE: BINARY	
PART NUMBER: 7493		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 25 C
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 6		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/A DEFECT CAUSE: N/A

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2300 TESTED.

MFEF REPORT NUMBER: 906 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER		CIRCUIT TYPE: BINARY	
PART NUMBER: 7493		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 25 C
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 110 TESTED.

MFEF REPORT NUMBER: 907 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER		CIRCUIT TYPE: BINARY	
PART NUMBER: 7493		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 25 C
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 110 TESTED.

MFEF REPORT NUMBER: 908 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER		CIRCUIT TYPE: BINARY	
PART NUMBER: 7493		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 25 C
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 10		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/A

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 875 TESTED.

MEF REPORT NUMBER 909

MEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 7493
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 25 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MEF REPORT NUMBER 910

MEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 7493
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 25 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MEF REPORT NUMBER 911

MEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 7493
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 25 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MEF REPORT NUMBER 912

MEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 4017A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: FROM DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: DECADE
 PART MANUFACTURER: RCA
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7431
 COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MEF REPORT NUMBER 913

MEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: COUNTER
 PART NUMBER: 4017A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: FROM DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: DECADE
 PART MANUFACTURER: RCA
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7431
 COMPLEXITY: 47 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 914

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 4006
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 375

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 15 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 915

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 7442
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BCD/DECIMAL
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 18 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2226 TESTED.

MFEF REPORT NUMBER: 916

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 7442
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 22

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BCD/DECIMAL
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 18 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2226 TESTED.

MFEF REPORT NUMBER: 917

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 7442
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 22

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BCD/DECIMAL
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 18 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1894 TESTED.

MFEF REPORT NUMBER: 918

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 7442
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BCD/DECIMAL
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7640
 COMPLEXITY: 18 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MEF REPORT NUMBER: 919

MEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 7442
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 12

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BCD/DECIMAL
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7640
 COMPLEXITY: 18 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MEF REPORT NUMBER: 920

MEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 7442
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BCD/DECIMAL
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 18 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 785 TESTED.

MEF REPORT NUMBER: 921

MEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 7442
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BCD/DECIMAL
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 18 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 791 TESTED

MEF REPORT NUMBER: 922

MEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 7442
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BCD/DECIMAL
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 18 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 791 TESTED.

MEF REPORT NUMBER: 923

MEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 7442
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BCD/DECIMAL
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7640
 COMPLEXITY: 18 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 924

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 7442
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 19

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BCD/DECIMAL
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7643
 COMPLEXITY: 18 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 925

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 9307
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7408
 COMPLEXITY: 35 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 926

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 9307
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7408
 COMPLEXITY: 35 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 927

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 9321
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 12

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 18 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 928

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 9321
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 52

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 18 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 929

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 9321
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7623
 COMPLEXITY: 18 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 930

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 9321
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7623
 COMPLEXITY: 18 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 931

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 9321
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7634
 COMPLEXITY: 18 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 932

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 9321
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 16

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7634
 COMPLEXITY: 18 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 933

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 9321
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7319
 COMPLEXITY: 18 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 934

MFEF REPORT DATE: 7e12

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 9321
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 18 C

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 935

MFEF REPORT DATE: 7e12

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 9321
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 18 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 936

MFEF REPORT DATE: 7e05

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER/DEMULTIPLEX
 PART NUMBER: 74S138
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7545
 COMPLEXITY: 16 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 937

MFEF REPORT DATE: 7e07

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER/DEMULTIPLEX
 PART NUMBER: 74S138
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 18

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7545
 COMPLEXITY: 16 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 938

MFEF REPORT DATE: 7e09

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER/DEMULTIPLEX
 PART NUMBER: 74S138
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7623
 COMPLEXITY: 16 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 939

MFEF REPORT DATE: 7610

DATA SOURCE: PI-002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER/DEMULTIPLX
 PART NUMBER: 74LS138
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7627
 COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 940

MFEF REPORT DATE: 7610

DATA SOURCE: PI-002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER/DEMULTIPLX
 PART NUMBER: 74LS138
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 15
 TIME TO DETECTION: 0

DATE CODE: 7632
 COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 941

MFEF REPORT DATE: 7611

DATA SOURCE: PI-002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER/DEMULTIPLX
 PART NUMBER: 74LS138
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 114

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7627
 COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 942

MFEF REPORT DATE: 7608

DATA SOURCE: PI-002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER/DEMULTIPLX
 PART NUMBER: 74LS138
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 14

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7619
 COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 943

MFEF REPORT DATE: 7609

DATA SOURCE: PI-002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER/DEMULTIPLX
 PART NUMBER: 74LS139
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7624
 COMPLEXITY: 18 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 945

MFEF REPORT DATE: 7605

DATA SOURCE: FI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER/DEMULPLEX
 PART NUMBER: 74154
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 25

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 25 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 945

MFEF REPORT DATE: 7612

DATA SOURCE: FI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER/DEMULPLEX
 PART NUMBER: 74154
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 25 C

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 946

MFEF REPORT DATE: 7612

DATA SOURCE: FI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER/DEMULPLEX
 PART NUMBER: 74154
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 25 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 947

MFEF REPORT DATE: 7605

DATA SOURCE: FI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER/DEMULPLEX
 PART NUMBER: 74154
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 13

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 25 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 471 TESTED.

MFEF REPORT NUMBER: 948

MFEF REPORT DATE: 7611

DATA SOURCE: FI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER/DEMULPLEX
 PART NUMBER: 74154
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 25 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 180 TESTED.

MFEF REPORT NUMBER: 949

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER/DEMULTIPLEX
 PART NUMBER: 74155
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 5 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 950

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER/DEMULTIPLEX
 PART NUMBER: 74155
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 15 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 951

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER/DEMULTIPLEX
 PART NUMBER: 74155
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7623
 COMPLEXITY: 15 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 952

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER/DEMULTIPLEX
 PART NUMBER: 74155
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7637
 COMPLEXITY: 15 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 953

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER/DEMULTIPLEX
 PART NUMBER: 9311
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

DATE CODE: 7421
 COMPLEXITY: 25 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 954 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX		CIRCUIT TYPE: N/R	
PART NUMBER: 9311		PART MANUFACTURER: VARIOUS	DATE CODE: 7421
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D	COMPLEXITY: 25 G
PACKAGE: CERAMIC DIP		NUMBER OF PINS: 24	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 955 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: ENCODER		CIRCUIT TYPE: N/R	
PART NUMBER: 74148		PART MANUFACTURER: VARIOUS	DATE CODE: 7610
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 29 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 16	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 956 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: ENCODER		CIRCUIT TYPE: N/R	
PART NUMBER: 74148		PART MANUFACTURER: VARIOUS	DATE CODE: 7623
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 29 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 16	
QUANTITY FAILED: 2		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 957 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: ENCODER		CIRCUIT TYPE: N/R	
PART NUMBER: 9318		PART MANUFACTURER: VARIOUS	DATE CODE: 7551
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 16	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 958 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP		CIRCUIT TYPE: JK	
PART NUMBER: 74S112		PART MANUFACTURER: VARIOUS	DATE CODE: 7605
DEVICE TECHNOLOGY: STTL		SCREEN CLASS: D-1	COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 16	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 959

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74S112
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7605
 COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 960

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74S112
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 961

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74S175
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 962

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74S175
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7546
 COMPLEXITY: 24 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 963

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74S175
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/P

DATE CODE: 0
 COMPLEXITY: 24 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 964

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74S175
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 965

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74S175
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7632
 COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 966

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74S74
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC N/R
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 12 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 967

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74S74
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7601
 COMPLEXITY: 12 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED

MFEF REPORT NUMBER: 968

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74S74
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 16

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7601
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED

MIL REPORT NUMBER 969

MIL REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74S74
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7601
 COMPLEXITY: 12 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1000 TESTED.

MIL REPORT NUMBER 970

MIL REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74S74
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 0

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7601
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1000 TESTED.

MIL REPORT NUMBER 971

MIL REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74S74
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7618
 COMPLEXITY: 12 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MIL REPORT NUMBER 972

MIL REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74S74
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7618
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MIL REPORT NUMBER 973

MIL REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74S74
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 974

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 3061
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7442
 COMPLEXITY: 16 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 975

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 8H22
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: SIGNETICS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 976

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74H102
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 10 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1520 TESTED.

MFEF REPORT NUMBER: 977

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74H102
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 43

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 10 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1520 TESTED.

MFEF REPORT NUMBER: 978

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74H102
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 10 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 413 TESTED.

MFF REPORT NUMBER 979

MFF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74H102
 DEVICE TECHNOLOGY: HTTI
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 15

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 10 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 413 TESTED.

MFF REPORT NUMBER 980

MFF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74H102
 DEVICE TECHNOLOGY: HTTI
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 10 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFF REPORT NUMBER: 981

MFF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74H102
 DEVICE TECHNOLOGY: HTTI
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 10 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFF REPORT NUMBER: 982

MFF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74H102
 DEVICE TECHNOLOGY: HTTI
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7427
 COMPLEXITY: 8 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFF REPORT NUMBER: 983

MFF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS112
 DEVICE TECHNOLOGY: LSTTI
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7619
 COMPLEXITY: 16 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 984

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS112
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 985

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS112
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 31

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7619
 COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 986

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS123
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7624
 COMPLEXITY: 20 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 987

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS123
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7628
 COMPLEXITY: 20 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 988

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS123
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7641
 COMPLEXITY: 20 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 989

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS174
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7624
 COMPLEXITY: 36 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/P

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 990

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS175
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7623
 COMPLEXITY: 2 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 991

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS221
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 16 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 992

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS273
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 20
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 50 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 993

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS273
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 20
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7641
 COMPLEXITY: 50 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 994

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS73
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 995

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS73
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 996

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS73
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7606
 COMPLEXITY: 16 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 997

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS73
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7606
 COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 998

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS74
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 17

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7623
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 999

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS74
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 17

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7623
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1000

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS74
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7628
 COMPLEXITY: 12 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1001

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS74
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7628
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1002

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS74
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 13

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7627
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1003

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS74
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7425
 COMPLEXITY: 12 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1004

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74LS74
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7425
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1005

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 2600
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: ADVANCED MICRO DEVICES
 SCREEN CLASS: D
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7351
 COMPLEXITY: 9 C

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1006

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 2600
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: ADVANCED MICRO DEVICES
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7629
 COMPLEXITY: 9 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1007

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 26123
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: ADVANCED MICRO DEVICES
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7550
 COMPLEXITY: 18 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 600 TESTED.

MFEF REPORT NUMBER: 1008

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 26123
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: ADVANCED MICRO DEVICES
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7550
 COMPLEXITY: 18 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 200 TESTED.

MIL-STD-883C

MIL-STD-883C REPORT DATE: 7612

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP		CIRCUIT TYPE: MONOSTABLE	
PART NUMBER: 26123		PART MANUFACTURER: ADVANCED MICRO DEVICES	DATE CODE: 7606
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 18 G
PACKAGE: PIN/DIP	DIP	NUMBER OF PINS: 16	
QUANTITY FAILED: 0		TIME TO DETECTION: 0	
FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE		FAILURE MODE: N/R	
DEFECT DESCRIPTION: N/R		DEFECT CAUSE: N/R	
	ACTIVATING STRESS A: N/R		
	ACTIVATING STRESS B: N/R		

REMARKS:

MIL-STD-883C REPORT NUMBER: 1010

MIL-STD-883C REPORT DATE: 7605

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP		CIRCUIT TYPE: N/R	
PART NUMBER: 4024		PART MANUFACTURER: MOTOROLA SEMI	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 36 T
PACKAGE: PIN/DIP	DIP	NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	
FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE		FAILURE MODE: N/R	
DEFECT DESCRIPTION: N/R		DEFECT CAUSE: N/R	
	ACTIVATING STRESS A: N/R		
	ACTIVATING STRESS B: N/R		

REMARKS:

MIL-STD-883C REPORT NUMBER: 1011

MIL-STD-883C REPORT DATE: 7607

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP		CIRCUIT TYPE: JK	
PART NUMBER: 74100		PART MANUFACTURER: VARIOUS	DATE CODE: 7602
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 16 G
PACKAGE: NONFERMETIC DIP	DIP	NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	
FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE		FAILURE MODE: N/R	
DEFECT DESCRIPTION: N/R		DEFECT CAUSE: N/R	
	ACTIVATING STRESS A: N/R		
	ACTIVATING STRESS B: N/R		

REMARKS:

MIL-STD-883C REPORT NUMBER: 1012

MIL-STD-883C REPORT DATE: 7603

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP		CIRCUIT TYPE: MONOSTABLE	
PART NUMBER: 74121		PART MANUFACTURER: VARIOUS	DATE CODE: 7606
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 8 G
PACKAGE: NONFERMETIC DIP	DIP	NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	
FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE		FAILURE MODE: N/R	
DEFECT DESCRIPTION: N/R		DEFECT CAUSE: N/R	
	ACTIVATING STRESS A: N/R		
	ACTIVATING STRESS B: N/R		

REMARKS:

MIL-STD-883C REPORT NUMBER: 1013

MIL-STD-883C REPORT DATE: 7605

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP		CIRCUIT TYPE: MONOSTABLE	
PART NUMBER: 74121		PART MANUFACTURER: VARIOUS	DATE CODE: 7612
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 8 G
PACKAGE: NONFERMETIC DIP	DIP	NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	
FAILURE INDICATOR: MECHANICAL ANOMALY		FAILURE MODE: N/R	
DEFECT DESCRIPTION: N/R		DEFECT CAUSE: N/R	
	ACTIVATING STRESS A: N/R		
	ACTIVATING STRESS B: N/R		

REMARKS: OUT OF LOT TESTED.

MEEF REPORT NUMBER: 1014

MEEF REPORT DATE: 7605

DATA SOURCE: FI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74121
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7612
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1073 TESTED.

MEEF REPORT NUMBER: 1015

MEEF REPORT DATE: 7605

DATA SOURCE: FI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74121
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7612
 COMPLEXITY: 5 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1499 TESTED.

MEEF REPORT NUMBER: 1016

MEEF REPORT DATE: 7605

DATA SOURCE: FI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74121
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7612
 COMPLEXITY: 5 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: 1017

MEEF REPORT DATE: 7605

DATA SOURCE: FI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74121
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7615
 COMPLEXITY: 8 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: 1018

MEEF REPORT DATE: 7605

DATA SOURCE: FI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74121
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 19

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7615
 COMPLEXITY: 8 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1019

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74121
DEVICE TECHNOLOGY: TTL
PACKAGE: CERAMIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7624
COMPLEXITY: 8 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1020

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74121
DEVICE TECHNOLOGY: TTL
PACKAGE: CERAMIC DIP
QUANTITY FAILED: 45

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7624
COMPLEXITY: 8 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1021

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74121
DEVICE TECHNOLOGY: TTL
PACKAGE: CERAMIC DIP
QUANTITY FAILED: 23

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7629
COMPLEXITY: 8 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1022

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74121
DEVICE TECHNOLOGY: TTL
PACKAGE: CERAMIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7629
COMPLEXITY: 8 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1023

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74121
DEVICE TECHNOLOGY: TTL
PACKAGE: CERAMIC DIP
QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7629
COMPLEXITY: 8 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1024

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74121
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7643
COMPLEXITY: 8 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1025

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74121
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC
QUANTITY FAILED: 16

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7643
COMPLEXITY: 8 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1026

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74121
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 8 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1027

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74121
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 8 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1028

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74121
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 27

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 8 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1253 TESTED

MFEF REPORT NUMBER: 1029

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74121
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 8 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1253 TESTED.

MFEF REPORT NUMBER: 1030

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74121
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 146

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 8 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1691 TESTED.

MFEF REPORT NUMBER: 1031

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74121
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 8 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 120 TESTED.

MFEF REPORT NUMBER: 1032

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74121
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 8 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 254 TESTED.

MFEF REPORT NUMBER: 1033

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74121
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 8 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 254 TESTED.

MFEF REPORT NUMBER: 1034

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74121
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 8 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1000 TESTED.

MFEF REPORT NUMBER: 1035

MFEF REPORT DATE: /612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74121
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 8 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1400 TESTED.

MFEF REPORT NUMBER: 1036

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74122
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 10 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1037

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74123
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 20 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1999 TESTED.

MFEF REPORT NUMBER: 1038

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74123
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 20 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1999 TESTED.

MFEF REPORT NUMBR: 1039

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74123
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 20 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1500 TESTED.

MFEF REPORT NUMBER 1040

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74123
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 20 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1500 TESTED.

MFEF REPORT NUMBER 1041

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74123
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 20 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1994 TESTED.

MFEF REPORT NUMBER: 1042

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74123
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 20 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1994 TESTED.

MFEF REPORT NUMBER: 1043

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74123
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 20 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 162 TESTED.

MFEF REPORT NUMBER: 1044

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74123
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7606
COMPLEXITY: 20 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1045

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74123
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7606
COMPLEXITY: 20 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1046

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74123
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7532
COMPLEXITY: 20 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1047

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74123
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7606
COMPLEXITY: 20 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1048

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74123
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7606
COMPLEXITY: 20 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1049

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74123
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 20 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1050

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74123
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 20 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1051

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74123
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7627
 COMPLEXITY: 20 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1000 TESTED.

MFEF REPORT NUMBER: 1052

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74123
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 28

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7627
 COMPLEXITY: 20 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1053

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74123
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 20

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 20 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED.

MFEF REPORT NUMBER: 1054

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74123
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 20 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2996 TESTED.

MFEF REPORT NUMBER: 1055

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74123
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 77

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 20 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED.

MFEF REPORT NUMBER: 1056

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74123
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 20 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED.

MFEF REPORT NUMBER: 1057

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74123
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 23

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7627
COMPLEXITY: 20 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1058

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74123
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7627
COMPLEXITY: 20 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1059

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74123
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7637
 COMPLEXITY: 20 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1060

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0602 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74123
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 984

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7637
 COMPLEXITY: 20 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1262 FAILURES.

MFEF REPORT NUMBER: 1061

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74123
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7637
 COMPLEXITY: 20 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1062

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74123
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 272

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: P-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7637
 COMPLEXITY: 20 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1262 FAILURES.

MFEF REPORT NUMBER: 1063

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74173
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 45 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1064

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74173
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 88

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 45 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1065

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74173
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 353

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 45 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1066

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74173
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7305
 COMPLEXITY: 45 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1067

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74173
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7305
 COMPLEXITY: 45 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1068

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74174
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 36 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1066

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74174
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 36 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1070

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74174
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 36 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1071

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74174
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 36 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1072

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74174
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 754R
 COMPLEXITY: 36 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1073

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74174
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 754R
 COMPLEXITY: 36 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1074

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74174
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7609
 COMPLEXITY: 36 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1075

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74174
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7609
 COMPLEXITY: 36 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1076

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74174
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 36 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1077

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74174
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 36 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1078

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74174
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7626
 COMPLEXITY: 36 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBFR: 1079

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74175
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 55

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3998 TESTED.

MFEF REPORT NUMBER: 1080

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74175
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 135 TESTED.

MFEF REPORT NUMBER: 1081

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74175
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 12

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1000 TESTED.

MFEF REPORT NUMBER: 1082

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74175
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 24 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1500 TESTED.

MFEF REPORT NUMBFR: 1083

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74175
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 39

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1500 TESTED.

MFEF REPORT NUMBER: 1084

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74175
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 24 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 240 TESTED.

MFEF REPORT NUMBER 1085

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74175
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 249 TESTED.

MFEF REPORT NUMBER: 1086

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74175
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 24 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED.

MFEF REPORT NUMBER: 1087

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74175
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 24 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED.

MFEF REPORT NUMBER: 1088

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74175
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 23

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED.

MFEF REPORT NUMBER: 1089

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74175
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 24 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED.

MFEF REPORT NUMBER 1090

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74175
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 22

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED.

MFEF REPORT NUMBER: 1091

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74175
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7602
COMPLEXITY: 24 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1092

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74175
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7604
COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1093

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74175
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 24 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1094

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74175
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1095

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74175
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7618
COMPLEXITY: 24 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1096

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74175
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7618
COMPLEXITY: 24 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1097

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74175
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 33

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7618
COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1098

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 74175
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 29

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7623
COMPLEXITY: 24 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1099

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74175
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 74

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7623
 COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1100

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74175
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 24 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1101

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74175
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1102

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74175
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7637
 COMPLEXITY: 24 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1103

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74175
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7637
 COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1104

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74175
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7436
 COMPLEXITY: 24 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1105

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74175
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7319
 COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1106

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74175
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7642
 COMPLEXITY: 24 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1107

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74175
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 14

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7642
 COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1108

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7473
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 1 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2008 TESTED.

MFEF REPORT NUMBER: 1109

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7473
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 13

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2998 TESTED.

MFEF REPORT NUMBER: 1110

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7473
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2499 TESTED.

MFEF REPORT NUMBER: 1111

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7473
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 21

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2499 TESTED.

MFEF REPORT NUMBER: 1112

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7473
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1553 TESTED.

MFEF REPORT NUMBER: 1113

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7473
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7605
 COMPLEXITY: 16 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1114

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 7473
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: JK
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7605
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1115

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 7473
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 21

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: JK
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1116

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 7473
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: JK
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7624
COMPLEXITY: 16 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1117

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 7473
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: JK
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7624
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1118

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 7473
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: JK
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7619
COMPLEXITY: 16 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1119

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7473
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7619
 COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1120

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7473
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: JK
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7627
 COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS OUT OF 2000 TESTED.

MFEF REPORT NUMBER 1121

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7603
 COMPLEXITY: 12 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS OUT OF 4998 TESTED.

MFEF REPORT NUMBER 1122

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7603
 COMPLEXITY: 12 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4998 TESTED.

MFEF REPORT NUMBER: 1123

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7603
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4998 TESTED.

MFEF REPORT NUMBER: 1124

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7608
 COMPLEXITY: 12 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1125

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7608
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1126

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 31

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7627
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5250 TESTED.

MFEF REPORT NUMBER 1127

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7627
 COMPLEXITY: 12 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1128

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7627
 COMPLEXITY: 12 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1129

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 18

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7627
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1130

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7623
 COMPLEXITY: 12 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1131

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7623
 COMPLEXITY: 12 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1132

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 18

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7623
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1133

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 21

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 12 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1280 TESTED.

MFEF REPORT NUMBER: 1134

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 22

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1280 TESTED.

MFEF REPORT NUMBER: 1135

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 12 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4990 TESTED.

MFEF REPORT NUMBER: 1136

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4990 TESTED.

MFEF REPORT NUMBER: 1137

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2424 TESTED.

MFEF REPORT NUMBER: 1138

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 12 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 14,093 TESTED.

MFEF REPORT NUMBER: 1139

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 78

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 12 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 16,073 TESTED.

MFEF REPORT NUMBER: 1140

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 12 C

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 6273 TESTED.

MFEF REPORT NUMBER: 1141

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 59

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 12 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 6223 TESTED.

MFEF REPORT NUMBER: 1142

MFEF REPORT DATE: 7663

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 12 C

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1143

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 12 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1144

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: 0
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 12 C

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1145

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: 0
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 12 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1144

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: 0
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 12 C

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1144

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: 0
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 12 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1144

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: 0
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 12 C

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER 1149

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 66

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 9498 TESTED.

MFEF REPORT NUMBER: 1150

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1237 TESTED.

MFEF REPORT NUMBER: 1151

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1287 TESTED.

MFEF REPORT NUMBER: 1152

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 12 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4823 TESTED.

MFEF REPORT NUMBER: 1153

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 7474
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: D
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 12 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4823 TESTED

MFEF REPORT NUMBER: 1154

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 7474
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 27

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: D
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4823 TESTED.

MFEF REPORT NUMBER 1155

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 7476
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: JK
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7619
COMPLEXITY: 16 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1156

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 7476
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: JK
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7619
COMPLEXITY: 16 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1157

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 7476
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: JK
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7619
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1158

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 7476
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: JK
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 500 TESTED.

MFEF REPORT NUMBFR: 1159

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 7476
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 14

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: JK
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2500 TESTED.

MFEF REPORT NUMBER: 1160

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 7476
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: JK
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 16 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1161

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 7476
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 27

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: JK
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1162

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 7476
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: JK
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 16 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 548 TESTED.

MFEF REPORT NUMBER: 1163

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 7476
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 18

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: JK
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 548 TESTED.

MFEF REPORT NUMBER: 1164

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 7476
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: JK
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 16 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1491 TESTED.

MFEF REPORT NUMBER: 1165

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 7476
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: JK
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1491 TESTED.

MFEF REPORT NUMBER: 1166

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 7476
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: JK
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1491 TESTED.

MFEF REPORT NUMBER: 1167

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 7476
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: JK
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1500 TESTED.

MFEF REPORT NUMBER: 1168

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 8601/9601
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 8 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1169

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 9602
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7519
COMPLEXITY: 14 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1170

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 9602
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 15

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7519
COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1171

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 9602
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7601
COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1172

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 9602
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7614
COMPLEXITY: 14 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1173

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 9602
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 24

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7614
COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER: 1174

MFEE REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 9602
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 60

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5794 TESTED.

MFEE REPORT NUMBER: 1175

MFEE REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 9602
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 25

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7619
 COMPLEXITY: 14 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER: 1176

MFEE REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 9602
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7619
 COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER: 1177

MFEE REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 9602
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7622
 COMPLEXITY: 14 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER: 1178

MFEE REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 9602
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7622
 COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1179

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 9602
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7627
COMPLEXITY: 14 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 834 TESTED.

MFEF REPORT NUMBER: 1180

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 9602
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7627
COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 834 TESTED.

MFEF REPORT NUMBER: 1181

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 9602
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7627
COMPLEXITY: 14 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1166 TESTED.

MFEF REPORT NUMBER: 1182

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 9602
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7627
COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1166 TESTED.

MFEF REPORT NUMBER: 1183

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 9602
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7628
COMPLEXITY: 14 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1184

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 9602
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 17

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7628
COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1185

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 9602
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7631
COMPLEXITY: 14 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1186

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 9602
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7631
COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1187

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 9602
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7630
COMPLEXITY: 14 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1188

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: FLIP-FLOP
PART NUMBER: 9602
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: MONOSTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7630
COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER 1189

MFEE REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 9602
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7637
 COMPLEXITY: 14 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER: 1190

MFEE REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 9602
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 23

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7637
 COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS

MFEE REPORT NUMBER: 1191

MFEE REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 9602
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 62

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7639
 COMPLEXITY: 14 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER: 1192

MFEE REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 9602
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 13

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7639
 COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER: 1193

MFEE REPORT DATE: 7605

DATA SOURCE: PI-002 SOURCE COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 14528
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 20

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: MONOSTABLE
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 32 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEP REPORT NUMBER: 1194

MFEP REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 82S41
DEVICE TECHNOLOGY: STTL
PACKAGE: EPOXY DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: SIGNETICS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7421
COMPLEXITY: 20 G

FAILURE INDICATOR: PA METERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEP REPORT NUMBER: 1195

MFEP REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 82S41
DEVICE TECHNOLOGY: STTL
PACKAGE: EPOXY DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7629
COMPLEXITY: 20 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEP REPORT NUMBER 1196

MFEP REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 82S42
DEVICE TECHNOLOGY: STTL
PACKAGE EPOXY DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: SIGNETICS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7604
COMPLEXITY: 20 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEP REPORT NUMBER: 1197

MFEP REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 82S42
DEVICE TECHNOLOGY: STTL
PACKAGE: EPOXY DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: SIGNETICS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7604
COMPLEXITY: 20 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEP REPORT NUMBER: 1198

MFEP REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER 74S00
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7610
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1199

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 74S00
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7610
 COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1200

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 74S00
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 12

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7628
 COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1201

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 74S00
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7641
 COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1202

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 74S00
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1203

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 74S00
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1204

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74S02
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7627
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1205

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74S03
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1206

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74S10
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 24

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 3 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1207

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74S10
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7632
COMPLEXITY: 3 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1208

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74S11
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 3 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1209

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74S133
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7434
COMPLEXITY: 1 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1210

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74S133
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7434
COMPLEXITY: 1 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1211

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74S133
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 1 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1212

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74S133
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7549
COMPLEXITY: 1 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1213

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74S51
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1214

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 74S86
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1215

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 74S86
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1216

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 74S86
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1217

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 74H00
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1218

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 74H00
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1219

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74H00
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1220

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74H08
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7606
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1221

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74H20
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 2 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 470 TESTED.

MFEF REPORT NUMBER: 1222

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74H20
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7610
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 400 TESTED.

MFEF REPORT NUMBER: 1223

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74H20
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7627
COMPLEXITY: 2 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1224

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74H21
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7414
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1225

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74H22
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1226

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74H22
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 2 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1227

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74H22
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1228

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74H22
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1225

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74H30
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 1 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1230

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATF
PART NUMBER: 74H54
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 5 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1231

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATF
PART NUMBER: 74H55
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: EXPANDABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 3 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1232

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74LS00
DEVICE TECHNOLOGY: LSTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 27

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7624
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1233

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74LS00
DEVICE TECHNOLOGY: LSTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7624
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1234

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74LS02
DEVICE TECHNOLOGY: LSTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7615
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1235

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74LS02
DEVICE TECHNOLOGY: LSTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7615
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1236

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74LS08
DEVICE TECHNOLOGY: LSTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7624
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1237

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74LS08
DEVICE TECHNOLOGY: LSTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7627
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1238

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74LS20
DEVICE TECHNOLOGY: LSTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7619
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1239

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74LS32
DEVICE TECHNOLOGY: LSTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 24

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7623
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1240

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74LS32
DEVICE TECHNOLOGY: LSTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7628
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1241

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 74LS86
DEVICE TECHNOLOGY: LSTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1242

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7636
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1243

MFEF REPORT DATE: 76..

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 37

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7636
COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1244

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 21

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7636
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1245

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7640
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1246

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 21

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7640
COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1247

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 16

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7640
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1248

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 14

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4999 TESTED.

MFEF REPORT NUMBER: 1249

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 14

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4912 TESTED.

MFEF REPORT NUMBER: 1250

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 38

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4922 TESTED.

MFEF REPORT NUMBER: 1251

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 7402 TESTED.

MFEF REPORT NUMBER: 1252

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 48

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 40,159 TESTED.

MFEF REPORT NUMBER: 1253

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 113

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1254

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: C

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1508 TESTED.

MFEF REPORT NUMBER: 1255

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1508 TESTED.

MFEF REPORT NUMBER: 1256

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1303 TESTED.

MFEF REPORT NUMBER: 1257

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1303 TESTED.

MFEF REPORT NUMBER: 1258

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1259

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1260

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 66

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1261

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1262

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1263

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 10,000 TESTED.

MFEF REPORT NUMBER: 1264

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 40

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 10,000 TESTED.

MFEF REPORT NUMBER 1265

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 10,000 TESTED.

MFEF REPORT NUMBER: 1266

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1267

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1268

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1269

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7401
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DI
 QUANTITY FAILED: 39

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1270

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7402
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7631
 COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1271

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7402
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7631
 COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1272

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7402
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 20

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7631
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1273

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7402
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7619
 COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1274

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7402
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7619
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1275

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7402
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 13

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 15,000 TESTED.

MFEF REPORT NUMBER: 1276

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7402
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 30

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 15,000 TESTED.

MFEF REPORT NUMBER: 1277

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7402
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 34

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 26,981 TESTED.

MFEF REPORT NUMBER: 1278

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7402
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 226

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 26,981 TESTED.

MFEF REPORT NUMBER: 1279

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7402
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 117

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED.

MFEF REPORT NUMBER: 1280

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7402
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 15

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3545 TESTED.

MFEF REPORT NUMBER: 1281

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7402
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 258

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3545 TESTED.

MFEF REPORT NUMBER: 1282

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7402
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 33

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2218 TESTED.

MFEF REPORT NUMBER: 1283

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7402
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 22

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 19,880 TESTED.

MFEF REPORT NUMBER: 1285

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7402
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1286

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7402
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 19

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/A
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1287

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7402
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1288

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7408
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1289

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7408
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 12

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1290

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7408
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 11,000 TESTED.

MFEF REPORT NUMBER: 1291

MFEF REPORT DATE: 7694

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7408
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 11,000 TESTED.

MFEF REPORT NUMBER: 1292

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7408
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 35

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 11,000 TESTED.

MFEF REPORT NUMBER: 1293

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7408
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2600 TESTED.

MFEF REPORT NUMBER: 1294

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7408
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 6402 TESTED.

MFEF REPORT NUMBER: 1295

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7428
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 25

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 6402 TESTED.

MFEF REPORT NUMBER: 1296

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7408
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1636 TESTED.

MFEF REPORT NUMBER: 1297

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7408
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1636 TESTED.

MFEF REPORT NUMBER: 1298

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7408
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7610
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1299

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7408
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7623
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1300

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7408
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 13

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7623
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1301

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7408
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7626
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1302

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7408
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 62

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7626
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1303

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7408
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7641
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1304

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7408
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7641
COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1305

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7408
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 49

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7641
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1306

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7408
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 12

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7639
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1307

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7409
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1308

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7410
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7632
COMPLEXITY: 3 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1309

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7410
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7632
COMPLEXITY: 3 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1310

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7410
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VAF'OUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7632
COMPLEXITY: 3 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1311

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7410
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 3 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1312

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7410
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 12

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 3 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1313

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7410
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 3 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5400 TESTED.

MFEF REPORT NUMBER: 1314

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7410
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 3 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5400 TESTED.

MFEF REPORT NUMBER: 1315

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 7410		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 8		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE	FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R	DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R	
ACTIVATING STRESS B: N/R	

REMARKS: OUT OF 5400 TESTED.

MFEF REPORT NUMBER: 1316

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 7410		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 2		TIME TO DETECTION: 0	

FAILURE INDICATOR: MECHANICAL ANOMALY	FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R	DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R	
ACTIVATING STRESS B: N/R	

REMARKS: OUT OF 5400 TESTED.

MFEF REPORT NUMBER: 1317

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 7410		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 8		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE	FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R	DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R	
ACTIVATING STRESS B: N/R	

REMARKS: OUT OF 5400 TESTED.

MFEF REPORT NUMBER: 1318

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 7410		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 6		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE	FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R	DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R	
ACTIVATING STRESS B: N/R	

REMARKS: OUT OF 4728 TESTED.

MFEF REPORT NUMBER: 1319

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 7410		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: FUNCTIONAL ANOMALY	FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R	DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R	
ACTIVATING STRESS B: N/R	

REMARKS: OUT OF 5400 TESTED.

MFEF REPORT NUMBER: 1320

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7410
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 3 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5400 TESTED.

MFEF REPORT NUMBER: 1321

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7410
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 3 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 6000 TESTED.

MFEF REPORT NUMBER: 1322

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7410
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 29

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 3 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 6000 TESTED.

MFEF REPORT NUMBER: 1323

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7410
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 3 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 8000 TESTED.

MFEF REPORT NUMBER: 1324

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7410
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 3 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 8000 TESTED.

MFEF REPORT NUMBER: 1325

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7410
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 3 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 8000 TESTED.

MFEF REPORT NUMBER: 1326

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7411
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 3 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1327

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7411
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 3 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1328

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7411
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7616
COMPLEXITY: 3 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1329

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7412
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 3 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1331

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 7412		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 7		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

REMARKS:

MFEF REPORT NUMBER: 1331

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 74136		PART MANUFACTURER: VARIOUS	DATE CODE: 7549
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 4		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

REMARKS:

MFEF REPORT NUMBER: 1332

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 74136		PART MANUFACTURER: VARIOUS	DATE CODE: 7602
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 8		TIME TO DETECTION: 0	

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

REMARKS:

MFEF REPORT NUMBER: 1333

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 74136		PART MANUFACTURER: VARIOUS	DATE CODE: 7602
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 11		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

REMARKS:

MFEF REPORT NUMBER: 1334

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 74136		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

REMARKS:

MFEF REPORT NUMBER: 1335

MFEF REPORT DATE: 7612

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 74136
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1336

MFEF REPORT DATE: 7603

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7413
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: SCHMITT TRIGGER
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7421
 COMPLEXITY: 2 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1337

MFEF REPORT DATE: 7603

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7413
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 37

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: SCHMITT TRIGGER
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7421
 COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1338

MFEF REPORT DATE: 7606

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7413
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: SCHMITT TRIGGER
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7549
 COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1339

MFEF REPORT DATE: 7903

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: SN54L153
 DEVICE TECHNOLOGY: LTTL
 PACKAGE: N/R
 QUANTITY FAILED: 2

DATA-TYPE: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: MSS

DATE CODE: 7611
 COMPLEXITY: 16 G

FAILURE INDICATOR: SHORT INPUT
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: METAL BOND PAD
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS C: ELECTRICAL OVERSTRESS

REMARKS: INPUTS 6,12 BOND PADS (1 DEV) AND INPUTS 5,14 BOND PADS (1 DEV) SPOTTED UNDER OXIDE TO NEARLY GROUND METALIZATION.

MFEF REPORT NUMBER: 1340

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7413
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: SCHMITT TRIGGER
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7533
 COMPLEXITY: 2 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1341

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7413
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: SCHMITT TRIGGER
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7533
 COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS CL. OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1342

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7413
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: SCHMITT TRIGGER
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1343

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7413
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: SCHMITT TRIGGER
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7619
 COMPLEXITY: 2 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1344

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7413
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: SCHMITT TRIGGER
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7619
 COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1345

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7413
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 12

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: SCHMITT TRIGGER
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7627
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1346

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7413
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 26

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: SCHMITT TRIGGER
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7635
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1347

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7413
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: SCHMITT TRIGGER
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7631
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1348

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7420
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7602
COMPLEXITY: 2 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1349

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7420
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7602
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1350

MFEF REPORT DATE: 7602

DATA SOURCE: PI-001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7-20
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/A

DATE CODE: 7551
 COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/A

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1351

MFEF REPORT DATE: 7603

DATA SOURCE: PI-001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7-20
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7607
 COMPLEXITY: 2 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/A

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1352

MFEF REPORT DATE: 7603

DATA SOURCE: PI-001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7-20
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7607
 COMPLEXITY: 2 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/A

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1353

MFEF REPORT DATE: 7603

DATA SOURCE: PI-001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7-20
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7607
 COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/A

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1354

MFEF REPORT DATE: 7603

DATA SOURCE: PI-001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7-20
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7603
 COMPLEXITY: 2 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/A

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1355

MFEF REPORT DATE: 7605

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7420
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7603
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1356

MFEF REPORT DATE: 7606

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7420
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 16

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7617
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1357

MFEF REPORT DATE: 7606

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7420
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7613
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1358

MFEF REPORT DATE: 7610

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7420
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7631
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1359

MFEF REPORT DATE: 7605

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7420
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF R. RT NUMBER: 1360

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7420
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1361

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7420
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1362

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7420
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 21

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1363

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7420
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1364

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7420
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R
 DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 667 TESTED.

MFEF REPORT NUMBER: 1365

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7420
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 667 TESTED.

MFEF REPORT NUMBER: 1366

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7420
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 2 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1500 TESTED.

MFEF REPORT NUMBER: 1367

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7420
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 22

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1500 TESTED.

MFEF REPORT NUMBER: 1368

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7420
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 2 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2899 TESTED.

MFEF REPORT NUMBER: 1369

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7420
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 44

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2899 TESTED.

MPEF REPORT NUMBER: 1370

MPEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7420
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 170 TESTED.

MPEF REPORT NUMBER: 1371

MPEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7420
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 170 TESTED.

MPEF REPORT NUMBER: 1372

MPEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7425
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7549
 COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MPEF REPORT NUMBER: 1373

MPEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7425
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MPEF REPORT NUMBER: 1374

MPEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7425
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7623
 COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1375

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7427
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 3 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1376

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7429
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 100 TESTED.

MFEF REPORT NUMBER: 1377

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7429
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 313 TESTED.

MFEF REPORT NUMBER: 1378

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7429
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7451
COMPLEXITY: 2 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1379

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7429
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7451
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1380

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7429
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7329
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1381

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7429
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 19

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 2 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1382

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7430
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 1 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5023 TESTED.

MFEF REPORT NUMBER: 1383

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7430
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 1 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5023 TESTED.

MFEF REPORT NUMBER: 1384

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7430
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 1 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1385

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7430
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 30

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 1 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1386

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7432
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3646 TESTED.

MFEF REPORT NUMBER: 1387

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7432
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1424 TESTED.

MFEF REPORT NUMBER: 1388

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7432
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1424 TESTED.

MFEF REPORT NUMBER: 1389

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7432
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7609
COMPLEXITY: 4 C

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MPLF REPORT NUMBER: 1390

MPLF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7432
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7609
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MPLF REPORT NUMBER: 1391

MPLF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7432
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MPLF REPORT NUMBER: 1392

MPLF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7432
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MPLF REPORT NUMBER: 1393

MPLF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7432
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7632
 COMPLEXITY: G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MPLF REPORT NUMBER: 1394

MPLF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7432
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7652
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1395

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7432
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 26

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7641
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1396

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7451
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 7989 TESTED.

MFEF REPORT NUMBER: 1397

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7451
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 7989 TESTED.

MFEF REPORT NUMBER: 1398

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7451
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1399

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7451
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/A

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1400

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7451
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1401

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7451
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 6000 TESTED.

MFEF REPORT NUMBER: 1402

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7451
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 6000 TESTED.

MFEF REPORT NUMBER: 1403

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7451
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 23

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7637
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 6000 TESTED.

MFEF REPORT NUMBER: 1404

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7451
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 13

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4922 TESTED.

MFEF REPORT NUMBER: 1405

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7451
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 250

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4922 TESTED.

MFEF REPORT NUMBER: 1406

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7451
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/A

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1652 TESTED.

MFEF REPORT NUMBER: 1407

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7451
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1652 TESTED.

MFEF REPORT NUMBER: 1408

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7451
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 153 TESTED.

MFEF REPORT NUMBER: 1409

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7451
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7635
 COMPLEXITY: 6 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1410

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7451
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 42

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7635
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1411

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7454
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 5 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 8995 TESTED.

MFEF REPORT NUMBER: 1412

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7454
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 14

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 5 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 8095 TESTED.

MFEF REPORT NUMBER: 1413

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7454
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 69

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 5 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 8495 TESTED.

MFEF REPORT NUMBER: 1414

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7454
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 5 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 450 TESTED.

MFEF REPORT NUMBER: 1415

MFFF REPORT DATE: 7612

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 7454		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 5 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 3		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE	FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R	DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R	
ACTIVATING STRESS B: N/R	

REMARKS:

MFEF REPORT NUMBER: 1416

MFFF REPORT DATE: 7604

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 7454		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 5 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 2		TIME TO DETECTION: 0	

FAILURE INDICATOR: MECHANICAL ANOMALY	FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R	DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R	
ACTIVATING STRESS B: N/R	

REMARKS:

MFEF REPORT NUMBER: 1417

MFFF REPORT DATE: 7604

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 7454		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 5 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 3		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE	FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R	DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R	
ACTIVATING STRESS B: N/R	

REMARKS:

MFEF REPORT NUMBER: 1418

MFFF REPORT DATE: 7605

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 7486		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 2		TIME TO DETECTION: 0	

FAILURE INDICATOR: MECHANICAL ANOMALY	FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R	DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R	
ACTIVATING STRESS B: N/R	

REMARKS:

MFEF REPORT NUMBER: 1419

MFFF REPORT DATE: 7605

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 7486		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 30		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE	FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R	DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R	
ACTIVATING STRESS B: N/R	

REMARKS:

MFF REPORT NUMBER: 1420

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7486
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMITERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1057 TESTED.

MFF REPORT NUMBER: 1421

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7486
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 795 TESTED.

MFF REPORT NUMBER: 1422

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7486
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 805 TESTED.

MFF REPORT NUMBER: 1423

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7486
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 805 TESTED.

MFF REPORT NUMBER: 1424

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7486
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 805 TESTED.

MFEF REPORT NUMBER: 1425

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 7400		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 4 C
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 8		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE	FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R	DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R	
ACTIVATING STRESS B: N/R	

REMARKS: OUT OF 595 TESTED.

MFEF REPORT NUMBER 1426

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 7486		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 4 C
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 3		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE	FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R	DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R	
ACTIVATING STRESS B: N/R	

REMARKS: OUT OF 65 TESTED.

MFEF REPORT NUMBER: 1427

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 8241		PART MANUFACTURER: VARIOUS	DATE CODE: 7415
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 20 C
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE	FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R	DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R	
ACTIVATING STRESS B: N/R	

REMARKS:

MFEF REPORT NUMBER: 1428

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 8242		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 20 C
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 11		TIME TO DETECTION: 0	

FAILURE INDICATOR: FUNCTIONAL ANOMALY	FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R	DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R	
ACTIVATING STRESS B: N/R	

REMARKS: OUT OF 2990 TESTED.

MFEF REPORT NUMBER: 1429

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 8242		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 20 C
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 30		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE	FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R	DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R	
ACTIVATING STRESS B: N/R	

REMARKS: OUT OF 2990 TESTED.

MFEF REPORT NUMBER: 1430

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 8242
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 20 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS OUT OF 1000 TESTED.

MFEF REPORT NUMBER 1431

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 8242
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 20 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1000 TESTED.

MFEF REPORT NUMBER: 1432

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 8242
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 20 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1100 TESTED.

MFEF REPORT NUMBER. 1433

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 8242
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 20 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS OUT OF 1100 TESTED.

MFEF REPORT NUMBER: 1434

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 8242
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 20 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 31 TESTED.

MFEF REPORT NUMBER: 1435

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 8242
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 12

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 20 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/A

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3112 TESTED.

MFEF REPORT NUMBER: 1436

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 1601/1602
 DEVICE TECHNOLOGY: ECL
 PACKAGE: CFRAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: D
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1437

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GENERATOR
 PART NUMBER: 82S62
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7613
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1438

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GENERATOR
 PART NUMBER: 82S62
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7614
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1439

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GENERATOR
 PART NUMBER: 82S62
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7629
 COMPLEXITY: 12 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/P

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER: 1440

MFEE REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GENERATOR
 PART NUMBER: 8220
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 9 B

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1664 TESTED.

MFEE REPORT NUMBER: 1441

MFEE REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GENERATOR
 PART NUMBER: 8220
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 9 B

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1664 TESTED.

MFEE REPORT NUMBER: 1442

MFEE REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GENERATOR
 PART NUMBER: 8220
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7612
 COMPLEXITY: 9 B

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER: 1443

MFEE REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GENERATOR
 PART NUMBER: 8220
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7631
 COMPLEXITY: 9 B

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS

MFEE REPORT NUMBER: 1444

MFEE REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GENERATOR
 PART NUMBER: 8220
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 9 B

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1445

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GENERATOR
PART NUMBER: 74180
DEVICE TECHNOLOGY: TTL
PACKAGE: CERAMIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7533
COMPLEXITY: 14 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1445

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GENERATOR
PART NUMBER: 74180
DEVICE TECHNOLOGY: TTL
PACKAGE: CERAMIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7533
COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1477

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GENERATOR
PART NUMBER: 74180
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 14 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1448

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GENERATOR
PART NUMBER: 74180
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 22

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1449

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GENERATOR
PART NUMBER: 74180
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7533
COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1450

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GENERATOR
PART NUMBER: 74180
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7621
COMPLEXITY: 14 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1451

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GENERATOR
PART NUMBER: 74180
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7621
COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1452

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GENERATOR
PART NUMBER: 74180
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 14 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1453

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GENERATOR
PART NUMBER: 74180
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1454

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 74S04
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1455

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 74S04
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 44

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R
DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1456

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 74S04
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R
DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3996 TESTED.

MFEF REPORT NUMBER: 1457

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 74S04
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 57

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R
DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3996 TESTED.

MFEF REPORT NUMBER: 1458

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 74L04
DEVICE TECHNOLOGY: LTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R
DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1459

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 74L04
DEVICE TECHNOLOGY: LTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R
DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1460

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 8H90
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: SIGNETICS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 255 TESTED.

MFEF REPORT NUMBER: 1461

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 8H90
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: SIGNETICS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1924 TESTED.

MFEF REPORT NUMBER: 1462

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 8H90
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 20

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: SIGNETICS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1924 TESTED.

MFEF REPORT NUMBER: 1463

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 8H90
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 41

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: SIGNETICS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 953 TESTED.

MFEF REPORT NUMBER: 1464

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 76H04
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1465

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 74H04
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 26

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1466

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 74H04
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 21

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1467

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 74H05
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 19

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7411
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 500 TESTED.

MFEF REPORT NUMBER: 1468

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 74H05
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 13

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7411
 COMPLEXITY: 6 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1335 TESTED.

MFEF REPORT NUMBER: 1469

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 74H05
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 34

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7411
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1335 TESTED.

MFEF REPORT NUMBER: 1470

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 74H05
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 16

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1471

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 74H05
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1472

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 74H05
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7411
COMPLEXITY: 6 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1473

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 74H05
DEVICE TECHNOLOGY: HTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 14

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7411
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1474

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 74LS04
DEVICE TECHNOLOGY: LS TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 19

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7619
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1475

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER		CIRCUIT TYPE: N/R	
PART NUMBER: 74LS04		PART MANUFACTURER: VARIOUS	DATE CODE: 7623
DEVICE TECHNOLOGY: LSTTL		SCREEN CLASS: D-1	COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 10		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
 ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1476

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: GATE		CIRCUIT TYPE: N/R	
PART NUMBER: 74LS10		PART MANUFACTURER: VARIOUS	DATE CODE: 0
DEVICE TECHNOLOGY: LSTTL		SCREEN CLASS: D-1	COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
 ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1477

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER		CIRCUIT TYPE: SCHMITT TRIGGER	
PART NUMBER: 74LS14		PART MANUFACTURER: VARIOUS	DATE CODE: 7541
DEVICE TECHNOLOGY: LSTTL		SCREEN CLASS: D-1	COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 11		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
 ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1478

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER		CIRCUIT TYPE: N/R	
PART NUMBER: 7404		PART MANUFACTURER: VARIOUS	DATE CODE: 7552
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 23		TIME TO DETECTION: 0	

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
 ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1479

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002	SOURCE: COMPONENT LEVEL	DATA-TYPE: ENVIRONMENTAL	APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER		CIRCUIT TYPE: N/R	
PART NUMBER: 7404		PART MANUFACTURER: VARIOUS	DATE CODE: 7552
DEVICE TECHNOLOGY: TTL		SCREEN CLASS: D-1	COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP		NUMBER OF PINS: 14	
QUANTITY FAILED: 1		TIME TO DETECTION: 0	

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
 DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
 ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1480

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEV. FUNCTION: INVERTER
PART NUMBER: 7404
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 13

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7552
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1481

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 7404
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7611
COMPLEXITY: 6 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1482

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 7404
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7611
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1483

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 7404
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7612
COMPLEXITY: 6 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1484

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 7404
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 168

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7612
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFLF REPORT NUMBER: 1485

MFLF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7612
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFLF REPORT NUMBER: 1486

MFLF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 66

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7622
 COMPLEXITY: 6 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFLF REPORT NUMBER: 1487

MFLF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7622
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFLF REPORT NUMBER: 1488

MFLF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 12480 TESTED.

MFLF REPORT NUMBER: 1489

MFLF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 95

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 12480 TESTED.

MFEF REPORT NUMBER: 1490

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 6 C

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1491

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 14

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 6 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1492

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 6 C

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 9250 TESTED.

MFEF REPORT NUMBER: 1493

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 6 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 9250 TESTED.

MFEF REPORT NUMBER: 1494

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 6 C

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1750 TESTED.

MFEF REPORT NUMBER: 1495

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1750 TESTED.

MFEF REPORT NUMBER: 1496

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 0

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 13,500 TESTED.

MFEF REPORT NUMBER: 1497

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1500 TESTED.

MFEF REPORT NUMBER: 1498

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 17

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 331 TESTED.

MFEF REPORT NUMBER: 1499

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7404
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 102 TESTED.

MFEF REPORT NUMBER: 1500

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 7404
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 102 TESTED.

MFEF REPORT NUMBER: 1501

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 7405
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7604
COMPLEXITY: 6 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1502

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 7405
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7604
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1503

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 7405
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7606
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1150 TESTED.

MFEF REPORT NUMBER: 1504

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 7405
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7609
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1505

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 7405
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7616
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1506

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 7405
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7614
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1507

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 7405
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7623
COMPLEXITY: 6 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 5736 TESTED.

MFEF REPORT NUMBER 1508

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 7405
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 19

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7623
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 5736 TESTED.

MFEF REPORT NUMBER: 1509

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 7405
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 44

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7623
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 9264 TESTED.

MFEF REPORT NUMBER: 1510

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7405
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 65

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2631 TESTED.

MFEF REPORT NUMBER: 1511

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7405
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 170

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2500 TESTED.

MFEF REPORT NUMBER: 1512

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7405
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 38

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1186 TESTED.

MFEF REPORT NUMBER: 1513

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7405
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/A

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 182 TESTED.

MFEF REPORT NUMBER: 1514

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7405
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 35

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4100 TESTED.

MFEE REPORT NUMBER: 1515

MFEE REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7405
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 15

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2296 TESTED.

MFEE REPORT NUMBER: 1516

MFEE REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7405
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEE REPORT NUMBER: 1517

MFEE REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7405
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 13

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4497 TESTED.

MFEE REPORT NUMBER: 1518

MFEE REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7414
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 12

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: SCHMITT TRIGGER
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1000 TESTED.

MFEE REPORT NUMBER: 1519

MFEE REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 7414
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: SCHMITT TRIGGER
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1520

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 7414
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: SCHMITT TRIGGER
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7552
COMPLEXITY: 6 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1521

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 7414
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: SCHMITT TRIGGER
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7627
COMPLEXITY: 6 C

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1522

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 74LS279
DEVICE TECHNOLOGY: LSTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: RS
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7624
COMPLEXITY: 8 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1523

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 74LS279
DEVICE TECHNOLOGY: LSTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: RS
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7619
COMPLEXITY: 8 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1524

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 74LS75
DEVICE TECHNOLOGY: LSTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: BISTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7624
COMPLEXITY: 24 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1525

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 9308
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 56 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1526

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 9308
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 56 G

FAILURE INDICATOR: PARAMTERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1527

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 9308
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: D
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 56 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1528

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 74100
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

DATE CODE: 7438
 COMPLEXITY: 56 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1529

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 74100
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 12

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 56 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1530

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 74100
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 56 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1531

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7602
 COMPLEXITY: 24 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1532

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7602
 COMPLEXITY: 24 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1533

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7602
 COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1534

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7602
 COMPLEXITY: 24 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1535

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 7-75
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BISTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7602
COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1536

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 7475
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BISTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7540
COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1537

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 7475
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BISTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7604
COMPLEXITY: 24 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1538

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 7475
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BISTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7604
COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1539

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 7475
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 16

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BISTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7603
COMPLEXITY: 24 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1540

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7603
 COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1541

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7615
 COMPLEXITY: 24 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1000 TESTED.

MFEF REPORT NUMBER: 1542

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7615
 COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1000 TESTED.

MFEF REPORT NUMBER: 1543

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7615
 COMPLEXITY: 24 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1544

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7615
 COMPLEXITY: 24 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1545

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 7475
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 13

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BISTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7615
COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1546

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 7475
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BISTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7615
COMPLEXITY: 24 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1547

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 7475
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 14

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BISTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7615
COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1548

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 7475
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 18

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BISTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7615
COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1549

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 7475
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BISTABLE
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7623
COMPLEXITY: 24 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1550

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7623
 COMPLEXITY: 24 C

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1551

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 19

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7623
 COMPLEXITY: 24 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1552

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 24 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1553

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 24 C

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3050 TESTED.

MFEF REPORT NUMBER: 1554

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 24 C

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3050 TESTED.

MFEF REPORT NUMBER: 1555

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 12

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: S/R
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS OUT OF 3050 TESTED.

MFEF REPORT NUMBER: 1556

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: S/R
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 24 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4376 TESTED.

MFEF REPORT NUMBER: 1557

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: S/R
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 24 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4376 TESTED.

MFEF REPORT NUMBER: 1558

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: S/R
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4376 TESTED.

MFEF REPORT NUMBER: 1559

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: S/R
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 24 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS OUT OF 1995 TESTED.

MFEF REPORT NUMBER: 1560

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1995 TESTED.

MFEF REPORT NUMBER: 1561

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 24 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 623 TESTED.

MFEF REPORT NUMBER: 1562

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 623 TESTED.

MFEF REPORT NUMBER: 1563

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 32

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 24 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1564

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 7475
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 16

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: BISTABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 24 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS

MFEP REPORT NUMBER 1565

MFEP REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 9314
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 12

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 26 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 7548 TESTED.

MFEP REPORT NUMBER: 1566

MFEP REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 9314
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 107

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 26 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 7548 TESTED.

MFEP REPORT NUMBER: 1568

MFEP REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 9314
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 121

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 26 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1498 TESTED.

MFEP REPORT NUMBER: 1569

MFEP REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 9314
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7551
 COMPLEXITY: 26 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEP REPORT NUMBER: 1570

MFEP REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 9314
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7610
 COMPLEXITY: 26 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1571

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 9314
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 86

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7610
COMPLEXITY: 26 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1572

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 9314
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 38

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7610
COMPLEXITY: 26 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1573

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 9314
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 25

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7547
COMPLEXITY: 26 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1574

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 9314
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7547
COMPLEXITY: 26 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1575

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 9314
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7547
COMPLEXITY: 26 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1576

MFEF REPORT DATE: 7601

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 9314
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7616
COMPLEXITY: 26 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1577

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 9314
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 23

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 26 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1578

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 9314
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 26 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1579

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 9314
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7625
COMPLEXITY: 26 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1580

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 9314
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 13

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7625
COMPLEXITY: 26 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1581

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 9314
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7625
COMPLEXITY: 26 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1582

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 9314
DEVICE TECHNOLOGY: TTL
PACKAGE: CERAMIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 26 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1583

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 9314
DEVICE TECHNOLOGY: TTL
PACKAGE: CERAMIC DIP
QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 26 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1584

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 9314
DEVICE TECHNOLOGY: TTL
PACKAGE: CERAMIC DIP
QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 26 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1585

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: LATCH
PART NUMBER: 9314
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 26 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1586

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 25 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1587

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1588

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7540
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 13 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1589

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7639
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3000 TESTED.

MFEF REPORT NUMBER: 1590

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7639
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 30 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3000 TESTED.

MFEF REPORT NUMBER: 1591

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 9314
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7639
 COMPLEXITY: 26 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1600 TESTED.

MFEF REPORT NUMBER: 1592

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 9314
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 21

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7639
 COMPLEXITY: 26 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1600 TESTED.

MFEF REPORT NUMBER: 1593

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 9314
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7639
 COMPLEXITY: 26 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1594

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 9314
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 17

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7639
 COMPLEXITY: 26 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1595

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 9314
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7642
 COMPLEXITY: 26 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1596

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 9314
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 36

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7442
 COMPLEXITY: 26 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1597

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 9334
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: ADDRESSABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 59 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1598

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 9334
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: ADDRESSABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 59 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1599

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 9334
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: ADDRESSABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7325
 COMPLEXITY: 59 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1600

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LATCH
 PART NUMBER: 9334
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: ADDRESSABLE
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7325
 COMPLEXITY: 59 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1601

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LOGIC UNIT
 PART NUMBER: 74H87
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: TRUE COMPLEMENT
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1602

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LOGIC UNIT
 PART NUMBER: 74H87
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: TRUE COMPLEMENT
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 14 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 600 TESTED.

MFEF REPORT NUMBER: 1603

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LOGIC UNIT
 PART NUMBER: 74H87
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: TRUE COMPLEMENT
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 14 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 600 TESTED.

MFEF REPORT NUMBER: 1604

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LOGIC UNIT
 PART NUMBER: 74H87
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 29

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: TRUE COMPLEMENT
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 600 TESTED.

MFEF REPORT NUMBER: 1605

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LOGIC UNIT
 PART NUMBER: 74H87
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: TRUE COMPLEMENT
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 14 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 420 TESTED.

MFEF REPORT NUMBER: 1606

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LOGIC UNIT
 PART NUMBER: 74181
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: ARITHMETIC
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 63 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1607

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LOGIC UNIT
 PART NUMBER: 9340
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: ARITHMETIC
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

DATE CODE: 7439
 COMPLEXITY: 80 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1608

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LOGIC UNIT
 PART NUMBER: 9340
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: ARITHMETIC
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

DATE CODE: 7439
 COMPLEXITY: 80 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1609

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LOGIC UNIT
 PART NUMBER: 9340
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: ARITHMETIC
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 80 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1610

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: LOGIC UNIT
 PART NUMBER: 9340
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: ARITHMETIC
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 81 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER: 1611

MFEE REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 74S153
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7602
 COMPLEXITY: 16 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER: 1612

MFEE REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 74S153
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7602
 COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER: 1613

MFEE REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 74S153
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER: 1614

MFEE REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 74S153
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 85

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEE REPORT NUMBER: 1615

MFEE REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 74S153
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1616

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74S157
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7548
COMPLEXITY: 15 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1617

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74S157
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7548
COMPLEXITY: 15 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1618

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74S157
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 15 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1619

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74S158
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 15 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1620

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74S158
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7552
COMPLEXITY: 15 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1621

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 74S158
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7614
 COMPLEXITY: 15 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/A

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1622

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 74S158
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 54

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7622
 COMPLEXITY: 15 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1623

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 74S158
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7626
 COMPLEXITY: 15 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1624

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 74S158
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7628
 COMPLEXITY: 15 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1625

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 74S257
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 15 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/A

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2177 TESTED.

MFEF REPORT NUMBER: 1626

MFEF REPORT DATE: 7603

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 74S257
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 16

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 15 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2177 TESTED.

MFEF REPORT NUMBER: 1627

MFEF REPORT DATE: 7603

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 74S257
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 15 C

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1122 TESTED.

MFEF REPORT NUMBER: 1628

MFEF REPORT DATE: 7603

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 74S257
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 15 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1122 TESTED.

MFEF REPORT NUMBER: 1629

MFEF REPORT DATE: 7607

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 74S257
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 25

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7615
 COMPLEXITY: 15 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1630

MFEF REPORT DATE: 7608

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 74S257
 DEVICE TECHNOLOGY: STTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

DATE CODE: 7615
 COMPLEXITY: 15 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1631

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74S258
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7308
COMPLEXITY: 15 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1632

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74S258
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7308
COMPLEXITY: 15 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1633

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74S258
DEVICE TECHNOLOGY: STTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7308
COMPLEXITY: 15 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1634

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74LS157
DEVICE TECHNOLOGY: LSTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 31

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7
COMPLEXITY: 15 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1635

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74LS257
DEVICE TECHNOLOGY: LSTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 17

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7624
COMPLEXITY: 15 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1636

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74LS258
DEVICE TECHNOLOGY: LSTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7604
COMPLEXITY: 15 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1637

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74151
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 17 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1638

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74151
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 17 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1639

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74151
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 17 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1640

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74151
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 17 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1641

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74151
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 16

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 17 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1642

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74153
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7544
COMPLEXITY: 16 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1643

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74153
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7544
COMPLEXITY: 16 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1644

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74153
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 16 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1645

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74153
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1646

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74153
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 16 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1647

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74153
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1646

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74153
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7624
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1649

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74153
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7623
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1650

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74153
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7627
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1651

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 19 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1652

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 12

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 19 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1653

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 12

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 19 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2005 TESTED.

MFEF REPORT NUMBER: 1654

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 19 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2005 TESTED.

MFEF REPORT NUMBER: 1655

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 19 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1000 TESTED.

MFEF REPORT NUMBER: 1656

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 19 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1000 TESTED.

MFEF REPORT NUMBER: 1657

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7546
COMPLEXITY: 19 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1558

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 19 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1020 TESTED.

MFEF REPORT NUMBER: 1659

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7321
COMPLEXITY: 19 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 208 TESTED.

MFEF REPORT NUMBER: 1660

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7321
COMPLEXITY: 19 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 624 TESTED.

MFEF REPORT NUMBER: 1661

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 8309/9309
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 16 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5007 TESTED.

MFEF REPORT NUMBER: 1662

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 8309/9309
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 31

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5007 TESTED.

MFEF REPORT NUMBER: 1663

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 8309/9309
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 125 TESTED.

MFEF REPORT NUMBER: 1664

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 8309/9309
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7550
COMPLEXITY: 16 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1665

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 8309/9309
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7620
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1666

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 8309/9309
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7428
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1667

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 8309/9309
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7632
COMPLEXITY: 16 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1666

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 8312/9312
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 18

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 17 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 390 TESTED.

MFEF REPORT NUMBER: 1669

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 8312/9312
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 17 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 390 TESTED.

MFEF REPORT NUMBER: 1670

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 8312/9312
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 17 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 159 TESTED.

MFEF REPORT NUMBER: 1671

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7603
COMPLEXITY: 19 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1672

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7552
COMPLEXITY: 19 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1673

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7552
COMPLEXITY: 19 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1674

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7447
COMPLEXITY: 19 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1675

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7447
COMPLEXITY: 19 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1676

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 15

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7619
COMPLEXITY: 19 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1677

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7619
COMPLEXITY: 19 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1678

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7607
COMPLEXITY: 19 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1679

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7618
COMPLEXITY: 19 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1680

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 46

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7616
COMPLEXITY: 19 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1681

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 19 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1682

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 19 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1683

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 19 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1684

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7316
COMPLEXITY: 19 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1685

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7316
COMPLEXITY: 19 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1686

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 19 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 258 TESTED.

MFEF REPORT NUMBER: 1687

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 19 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 146 TESTED.

MFEF REPORT NUMBER: 1688

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: MULTIPLEXER
PART NUMBER: 74157
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

DATE CODE: 7641
COMPLEXITY: 19 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1689

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 74LS164
DEVICE TECHNOLOGY: LSTTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7628
COMPLEXITY: 36 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1690

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 74164
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 36 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1691

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 74164
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 36 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1692

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 74164
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7616
COMPLEXITY: 36 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1693

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 74164
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7616
COMPLEXITY: 36 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1694

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 74164
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 12

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7616
COMPLEXITY: 36 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1695

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 74164
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7618
COMPLEXITY: 36 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1696

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 74164
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/A
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7618
 COMPLEXITY: 36 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1697

MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 74164
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/A
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7619
 COMPLEXITY: 36 C

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1698

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 74164
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/A
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7619
 COMPLEXITY: 36 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1699

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 74164
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 22

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/A
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 36 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/A
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1700

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 74164
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/A
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 36 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

REF ID: A66537

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INTERFACE
PART NUMBER: 7416
DEVICE TECHNOLOGY: BIPOLAR (NOC)
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BUFFER/DRIVER
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1702

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INTERFACE
PART NUMBER: 7416
DEVICE TECHNOLOGY: BIPOLAR (NOC)
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 60

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BUFFER/DRIVER
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1703

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INTERFACE
PART NUMBER: 7416
DEVICE TECHNOLOGY: BIPOLAR (NOC)
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BUFFER/DRIVER
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1704

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INTERFACE
PART NUMBER: 7416
DEVICE TECHNOLOGY: BIPOLAR (NOC)
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 12

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BUFFER/DRIVER
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1705

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INTERFACE
PART NUMBER: 7416
DEVICE TECHNOLOGY: BIPOLAR (NOC)
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BUFFER/DRIVER
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7628
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1706

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INTERFACE
PART NUMBER: 7416
DEVICE TECHNOLOGY: BIPOLAR (NOC)
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: BUFFER/DRIVER
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 6 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1707

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 74164
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 36 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1708

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 74164
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 36 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1709

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 74165
DEVICE TECHNOLOGY: TTL
PACKAGE: N/R N/R
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 62 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1710

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 74165
DEVICE TECHNOLOGY: TTL
PACKAGE: N/R N/R
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 62 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1711

MFEF REPORT DATE: 7601

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 74165
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7546
 COMPLEXITY: 62 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1712

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 74165
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7546
 COMPLEXITY: 62 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1713

MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 74165
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 62 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1714

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 74165
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7606
 COMPLEXITY: 62 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1715

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 74165
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7606
 COMPLEXITY: 62 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1716

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 74165
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 52

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7606
COMPLEXITY: 62 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1717

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 74165
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7623
COMPLEXITY: 62 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1718

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 74165
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 17

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7615
COMPLEXITY: 62 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1719

MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 74165
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 22

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7615
COMPLEXITY: 62 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1720

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 74194
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 47 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MPEF REPORT NUMBER. 1721

MPEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 74194
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 47 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MPEF REPORT NUMBER. 1722

MPEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 74194
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 47 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MPEF REPORT NUMBER. 1723

MPEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 74194
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 47 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MPEF REPORT NUMBER. 1724

MPEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 74195
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 20

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 41 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 115- TESTED.

MPEF REPORT NUMBER. 1725

MPEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 74195
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 13

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 41 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 144 TESTED.

MFEF REPORT NUMBER: 1726

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 74195
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 41 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 444 TESTED.

MFEF REPORT NUMBER: 1727

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 7495
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 37 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1728

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 7495
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 37 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1729

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 7495
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 37 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1730

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 7495
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 37 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1731

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 7495
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 37 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 99 TESTED.

MFEF REPORT NUMBER: 1732

MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 7495
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 37 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: OUT OF 382 TESTED.

MFEF REPORT NUMBER: 1733

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 7495
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 30

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7612
 COMPLEXITY: 37 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1734

MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 7495
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7248
 COMPLEXITY: 37 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1735

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 7496
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7545
 COMPLEXITY: 39 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1736

MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 7496
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7545
COMPLEXITY: 39 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1737

MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 7496
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7623
COMPLEXITY: 39 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1738

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 7496
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 39 G

FAILURE INDICATOR: FUNCTIONAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1739

MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 7496
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 39 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1740

MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 8202
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 24
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7546
COMPLEXITY: 66 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFLF REPORT NUMBER: 1741

MFLF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 8202
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 24
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7550
COMPLEXITY: 66 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFLF REPORT NUMBER: 1742

MFLF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 8202
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 24
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 66 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFLF REPORT NUMBER: 1743

MFLF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 8202
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 24
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 66 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFLF REPORT NUMBER: 1744

MFLF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 8202
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 24
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7613
COMPLEXITY: 66 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFLF REPORT NUMBER: 1745

MFLF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 8203
DEVICE TECHNOLOGY: TTL
PACKAGE: NONHERMETIC DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: VARIOUS
SCREEN CLASS: D-1
NUMBER OF PINS: 24
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7420
COMPLEXITY: 66 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1746

MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 8203
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 24
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7420
 COMPLEXITY: 66 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1748

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ITT SEMICONDUCTOR
 SCREEN CLASS: S/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7425
 COMPLEXITY: 4 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: LIFTED

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: INTERMETALLIC FORMATION

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: SCR. CLASS X. LIFTED/OPEN BALL BOND DUE TO ACUAL INTERMETALLIC GROWTH (PLAGUE). HIGH TEMP. EXPOSURE NOT ENOUGH CAUSE.

MFEF REPORT NUMBER: 1749

MFEF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5420
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: INPUT VOLT OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: HUMIDITY
 ACTIVATING STRESS B: PRESSURE

REMARKS: OUT-OF-TOLERANCE INPUT VOLTAGE DRIVE LEVELS BROUGHT ABOUT BY PRESSURE-INDUCED MOISTURE PENETRATION.

MFEF REPORT NUMBER: 1750

MFEF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5420
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: FAULTY GATE OUTPUT FOLLOWING BURN-IN SEGMENT OF ENVIRONMENTAL TEST SEQUENCE.

MFEF REPORT NUMBER: 1751

MFEF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7420
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC IP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 2 G

FAILURE INDICATOR: INPUT VOLT OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: HUMIDITY
 ACTIVATING STRESS B: PRESSURE

REMARKS: OUT-OF-TOLERANCE INPUT VOLTAGE DRIVE LEVELS AS A RESULT OF PRESSURE-INDUCED MOISTURE PENETRATION.

MPLF REPORT NUMBER: 1752

MPLF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4011A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: NON-FUNCT, IN-OP, CATAS
 DEFECT DESCRIPTION: N/A

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: FAILED INITIAL ELECTRICAL MEASUREMENT DUE TO INACTIVE GATE.

MPLF REPORT NUMBER: 1753

MPLF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4011A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: NON-FUNCT, IN-OP, CATAS
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: FAILED DUE TO AN INACTIVE GATE AND EXCESSIVE LEAKAGE CURRENT.

MPLF REPORT NUMBER: 1754

MPLF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4011A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: LEAKAGE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: FAILED DUE TO EXCESSIVE LEAKAGE CURRENT.

MPLF REPORT NUMBER: 1755

MPLF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4011A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: IMPROPER OUTPUT
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: FAILED DUE TO DEFECTIVE GATE OUTPUT.

MPLF REPORT NUMBER: 1756

MPLF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4011A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: D-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: LEAKAGE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: EXCESSIVE LEAKAGE CURRENTS.

MFEF REPORT NUMBER: 1757

MFEF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 4011A
DEVICE TECHNOLOGY: CMOS
PACKAGE: EPOXY DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: RCA
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: LEAKAGE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: EXCESSIVE LEAKAGE CURRENT, COUPLED WITH OUT-OF-SPEC. OUTPUT VOLTAGE LEVELS AND OUTPUT DRIVE CURRENTS.

MFEF REPORT NUMBER: 1758

MFEF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 4011A
DEVICE TECHNOLOGY: CMOS
PACKAGE: EPOXY DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: RCA
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: LEAKAGE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: LEAKAGE CURRENTS WERE 3 TO 4 TIMES THE MAXIMUM SPEC.

MFEF REPORT NUMBER: 1759

MFEF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 4011A
DEVICE TECHNOLOGY: CMOS
PACKAGE: EPOXY DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: RCA
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1760

MFEF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 4011A
DEVICE TECHNOLOGY: CMOS
PACKAGE: EPOXY DIP
QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: RCA
SCREEN CLASS: D-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: LEAKAGE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1761

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 4011A
DEVICE TECHNOLOGY: CMOS
PACKAGE: CERAMIC/METAL DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: RCA
SCREEN CLASS: JB
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1762

MFEF REPORT DATE: 7505

DATA SOURCE: 1A-0005 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 4011A
DEVICE TECHNOLOGY: CMOS
PACKAGE: CERAMIC/METAL DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: RCA
SCREEN CLASS: JB
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: NON-FUNCT, IN-OP, CATAS
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1763

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 4011A
DEVICE TECHNOLOGY: CMOS
PACKAGE: CERAMIC/METAL DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: RCA
SCREEN CLASS: JB
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1764

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 4011A
DEVICE TECHNOLOGY: CMOS
PACKAGE: CERAMIC/METAL DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: RCA
SCREEN CLASS: B-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: NON-FUNCT, IN-OP, CATAS
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1765

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 4011A
DEVICE TECHNOLOGY: CMOS
PACKAGE: CERAMIC/METAL DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: RCA
SCREEN CLASS: B-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1766

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 4011A
DEVICE TECHNOLOGY: CMOS
PACKAGE: CERAMIC/METAL DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: RCA
SCREEN CLASS: B-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 4 C

FAILURE INDICATOR: NON-FUNCT, IN-OP, CATAS
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1767

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4011A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: B-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1768

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4011A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: B-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: NON-FUNCT. IN-OP. CATAS
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1769

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4011A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: B-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1770

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4011A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: NON-FUNCT. IN-OP. CATAS
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1771

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4011A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER. 1772

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4011A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 2

DATA TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER. 1773

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4011A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 2

DATA TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1774

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4011A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 2

DATA TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER. 1775

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4011A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 5

DATA TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER. 1776

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4011A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 4

DATA TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: S/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: NON-FUNCT, IN-OP, CATAS
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFEF REPORT NUMBER: 1777

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 4011A
DEVICE TECHNOLOGY: CMOS
PACKAGE: EPOXY DIP
QUANTITY FAILED: 7

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: RCA
SCREEN CLASS: S/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R
DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: LEAKAGE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFEF REPORT NUMBER: 1778

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 4011A
DEVICE TECHNOLOGY: CMOS
PACKAGE: EPOXY DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: RCA
SCREEN CLASS: S/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R
DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: NON-FUNCT, IN-OP, CATAST
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X. CATASTROPHIC FAILURE, EXHIBITS EXCESSIVE LEAKAGE CURRENT.

MFEF REPORT NUMBER: 1779

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 4011A
DEVICE TECHNOLOGY: CMOS
PACKAGE: EPOXY DIP
QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: RCA
SCREEN CLASS: S/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R
DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: LEAKAGE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: EXCESSIVE LEAKAGE CURRENT. SCREEN CLASS X.

MFEF REPORT NUMBER: 1780

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 4011A
DEVICE TECHNOLOGY: CMOS
PACKAGE: EPOXY DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: RCA
SCREEN CLASS: S/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R
DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: NON-FUNCT, IN-OP, CATAST
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFEF REPORT NUMBER: 1781

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 4011A
DEVICE TECHNOLOGY: CMOS
PACKAGE: EPOXY DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: RCA
SCREEN CLASS: S/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R
DATE CODE: 0
COMPLEXITY: 4 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFEF REPORT NUMBER: 1782

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5420
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
 SCREEN CLASS: B-1 COMPLEXITY: 2 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: CHIPPED

FAILURE MODE: PACKAGE BODY
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: CHIPPED CASE NO1 DETECTED UNTIL PRE-BURN-IN ELECTRICAL TEST.

MFEF REPORT NUMBER: 1783

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7420
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS DATE CODE: 0
 SCREEN CLASS: S/R COMPLEXITY: 2 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT, IN-OP, CATAST
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS A.

MFEF REPORT NUMBER: 1784

MFEF REPORT DATE: 7505

DATA SOURCE: PA-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7420
 DEVICE TECHNOLOGY: TTL
 PACKAGE: NONHERMETIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: VARIOUS DATE CODE: 0
 SCREEN CLASS: S/R COMPLEXITY: 2 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: HI LVL INPUT CURRENT OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: EXCESSIVE DRIFT IN LOGIC 1 LEVEL INPUT CURRENT [IR] ON SEVERAL GATE INPUTS. SCREEN CLASS X.

MFEF REPORT NUMBER: 1785

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7446
 SCREEN CLASS: S/R COMPLEXITY: 3 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: LEAKAGE
 DEFECT DESCRIPTION: OPEN (NOC)

FAILURE MODE: METALIZATION
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
 ACTIVATING STRESS B: HUMIDITY

REMARKS: SCREEN CLASS X. MASSIVE CIRCUIT DISRUPTIONS [OPENS] CAUSED BY ELECTRICAL ABUSE DUE TO ABSORBED MOISTURE.

MFEF REPORT NUMBER: 1786

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 24

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7446
 SCREEN CLASS: S/R COMPLEXITY: 3 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: CHANNEL

FAILURE MODE: SURFACE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: HUMIDITY

REMARKS: SCREEN CLASS X. CHANNELING OF THE N-CHANNEL FETS.

MFEF REPORT NUMBER: 1787

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 4007
DEVICE TECHNOLOGY: CMOS
PACKAGE: EPOXY DIP
QUANTITY FAILED: 4

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: NATIONAL SEMI
SCREEN CLASS: S/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7444
COMPLEXITY: 3 G

FAILURE INDICATOR: N/R
DEFECT DESCRIPTION: CHANNEL

FAILURE MODE: SURFACE
DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: HUMIDITY

REMARKS: SCREEN CLASS X. CHANNELING OF N-CHANNEL FETS.

MFEF REPORT NUMBER: 1788

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 4007A
DEVICE TECHNOLOGY: CMOS
PACKAGE: EPOXY DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: RCA
SCREEN CLASS: S/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7444
COMPLEXITY: 3 G

FAILURE INDICATOR: LEAKAGE
DEFECT DESCRIPTION: N/R

FAILURE MODE: METALIZATION
DEFECT CAUSE: N/R

ACTIVATING STRESS A: HUMIDITY
ACTIVATING STRESS B: N/R

REMARKS: MOISTURE ABSORPTION INTO SURFACE DISRUPTED CIRCUIT OPERATION.

MFEF REPORT NUMBER: 1789

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 4007A
DEVICE TECHNOLOGY: CMOS
PACKAGE: EPOXY DIP
QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: RCA
SCREEN CLASS: S/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7444
COMPLEXITY: 3 G

FAILURE INDICATOR: N/R
DEFECT DESCRIPTION: CHANNEL

FAILURE MODE: SURFACE
DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: HUMIDITY

REMARKS: SCREEN CLASS X. CHANNELING OF N-CHANNEL FETS.

MFEF REPORT NUMBER: 1790

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 4007A
DEVICE TECHNOLOGY: CMOS
PACKAGE: EPOXY DIP
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: RCA
SCREEN CLASS: S/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7444
COMPLEXITY: 3 G

FAILURE INDICATOR: N/R
DEFECT DESCRIPTION: CRACKED

FAILURE MODE: DIE BULL
DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X. CRACKED DIE, BLOWN METALIZATION CAUSED/RESULT OF ELECTRICALLY ABUSIVE CURRENTS.

MFEF REPORT NUMBER: 1791

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: INVERTER
PART NUMBER: 4007A
DEVICE TECHNOLOGY: CMOS
PACKAGE: EPOXY DIP
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: RCA
SCREEN CLASS: S/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7444
COMPLEXITY: 3 G

FAILURE INDICATOR: N/R
DEFECT DESCRIPTION: CHANNEL

FAILURE MODE: SURFACE
DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: HUMIDITY

REMARKS: SCREEN CLASS X. CHANNELING OF N-CHANNEL FETS.

MPEF REPORT NUMBER: 1792

MPEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: EPROM DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: S/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7444
 COMPLEXITY: 3 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS A. FAILURE RESULTED FROM SHORTED GATE OXIDE REGION. FAILURE SITE COULD NOT BE DETERMINED.

MPEF REPORT NUMBER: 1793

MPEF REPORT DATE: 7603

DATA SOURCE: PA-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 10561
 DEVICE TECHNOLOGY: ECL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: D
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7432
 COMPLEXITY: 12 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: PINHOLE

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: ELECTROMIGRATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: CURRENT STRESS

REMARKS: EMITTER-BASE SHUNT OF OUTPUT TRANSISTOR DUE TO PIT FORMATION.

MPEF REPORT NUMBER: 1794

MPEF REPORT DATE: 7603

DATA SOURCE: PA-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER
 PART NUMBER: 10561
 DEVICE TECHNOLOGY: ECL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: D
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7432
 COMPLEXITY: 12 G

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE
 DEFECT DESCRIPTION: PINHOLE

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: ELECTROMIGRATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: CURRENT STRESS

REMARKS: EMITTER-BASE SHUNT OF OUTPUT TRANSISTOR DUE TO PIT FORMATION.

MPEF REPORT NUMBER: 1795

MPEF REPORT DATE: 7606

DATA SOURCE: PA-0004 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: DECODER/DEMULTIPLEX
 PART NUMBER: 54LS138
 DEVICE TECHNOLOGY: LSTTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: D
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: SHORT
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: FIELD OXIDE/DIELECTRIC
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: CONTAMINATION IN PYROLYTIC OXIDE CAUSED PIN-TO-PIN SHORT.

MPEF REPORT NUMBER: 1796

MPEF REPORT DATE: 7606

DATA SOURCE: PA-0004 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 54S00
 DEVICE TECHNOLOGY: STTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 2160

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: METALIZATION
 DEFECT CAUSE: ELECTROMIGRATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: EXCEEDED VOL LIMIT OF 0.5V. FAILURE ANALYSIS REVEALED ELECTROMIGR. EFFECTS ON LOADED OUTPUT TRANSISTOR METALIZATION.

MFEF REPORT NUMBER: 1797

MFEF REPORT DATE: 7508

DATA SOURCE: PA-0002 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 5410
DEVICE TECHNOLOGY: TTL
PACKAGE: CERAMIC FPK
QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: ITT SEMICONDUCTOR
SCREEN CLASS: C-1
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 0
COMPLEXITY: 3 G

FAILURE INDICATOR: N/R
DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: SURFACE
DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS:

MFEF REPORT NUMBER: 1798

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: EPOXY DIP
QUANTITY FAILED: 25

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: ITT SEMICONDUCTOR
SCREEN CLASS: S/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7425
COMPLEXITY: 4 G

FAILURE INDICATOR: N/R
DEFECT DESCRIPTION: BROKEN

FAILURE MODE: WIRE
DEFECT CAUSE: N/R

ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFEF REPORT NUMBER: 1799

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: EPOXY DIP
QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: ITT SEMICONDUCTOR
SCREEN CLASS: S/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7425
COMPLEXITY: 4 G

FAILURE INDICATOR: N/R
DEFECT DESCRIPTION: VOIDS

FAILURE MODE: WIREBOND DIE PAD
DEFECT CAUSE: INTERMETALLIC FORMATION

ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: AU-AL INTERMETALLICS FORMED THROUGH KIRKENDALL DIFFUSION RESULTED IN VOIDS, CAUSING OPEN, BUT NOT LIFTED, BONDS.

MFEF REPORT NUMBER: 1800

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: EPOXY DIP
QUANTITY FAILED: 2

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: ITT SEMICONDUCTOR
SCREEN CLASS: S/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7425
COMPLEXITY: 4 G

FAILURE INDICATOR: N/R
DEFECT DESCRIPTION: VOIDS

FAILURE MODE: WIREBOND DIE PAD
DEFECT CAUSE: INTERMETALLIC FORMATION

ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: AU-AL INTERMETALLICS FORMED THROUGH KIRKENDALL DIFFUSION RESULTED IN VOIDS, CAUSING OPEN, BUT NOT LIFTED, BONDS.

MFEF REPORT NUMBER: 1801

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 7400
DEVICE TECHNOLOGY: TTL
PACKAGE: EPOXY DIP
QUANTITY FAILED: 47

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: ITT SEMICONDUCTOR
SCREEN CLASS: S/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

DATE CODE: 7425
COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: CRACKED

FAILURE MODE: PACKAGE BODY
DEFECT CAUSE: N/R

ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: SWOLLEN/CRACKED ENCAPSULENT DUE TO HI TEMP EXPOSURE [200C TEST VS. 175C THERMAL COOL. TRANSITION TEMP.] CAUSED OPEN WIRE

MFEF REPORT NUMBER: 1802

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: S/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: BROKEN

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
 ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFEF REPORT NUMBER: 1803

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 3

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: S/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: BROKEN

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
 ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFEF REPORT NUMBER: 1804

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 25

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: S/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: BROKEN

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
 ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFEF REPORT NUMBER: 1805

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: S/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: VOIDS

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: INTERMETALLIC FORMATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: AG-AU INTERMETAL FORMED THRU KIRKENDALL DIFFUSION RESULTED IN VOIDS, CAUSING OPEN [NOT LIFTED] BONDS. SCREEN CLASS X.

MFEF REPORT NUMBER: 1806

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 5400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 49

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: S/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: CRACKED

FAILURE MODE: PACKAGE BODY
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
 ACTIVATING STRESS B: N/R

REMARKS: SOLDER (CRACKED) ENCAPS. DUE TO HI TEMP EXPOSURE [200C VS. 175C THERMAL COEF. TRANSITION TEMP] CAUSED OPEN WIRES. S-C. X.

MFEF REPORT NUMBER: 1807

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 5400
DEVICE TECHNOLOGY: TTL
PACKAGE: EPOXY DIP
QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: SIGNETICS DATE CODE: 7407
SCREEN CLASS: S/R COMPLEXITY: 4 G
NUMBER OF PINS: 14
TIME TO DETECTION: 0

FAILURE INDICATOR: N/R
DEFECT DESCRIPTION: SHORT (AOC)

FAILURE MODE: DIE DIFFUSION
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFEF REPORT NUMBER: 1808

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 5400
DEVICE TECHNOLOGY: TTL
PACKAGE: EPOXY DIP
QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: SIGNETICS DATE CODE: 7407
SCREEN CLASS: S/R COMPLEXITY: 4 G
NUMBER OF PINS: 14
TIME TO DETECTION: 0

FAILURE INDICATOR: N/R
DEFECT DESCRIPTION: VOIDS

FAILURE MODE: WIREBOND DIE PAD
DEFECT CAUSE: INTERMETALLIC FORMATION

ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/A

REMARKS: AU-AL INTERMETAL. FORMED THRU KIRKENDALL DIFFUSION RESULTED IN VOIDS, CAUSING OPEN (NOT LIFTED) BONDS. SCREEN CLASS X.

MFEF REPORT NUMBER: 1809

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 5400
DEVICE TECHNOLOGY: TTL
PACKAGE: EPOXY DIP
QUANTITY FAILED: 48

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: SIGNETICS DATE CODE: 7407
SCREEN CLASS: S/R COMPLEXITY: 4 G
NUMBER OF PINS: 14
TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: CRACKED

FAILURE MODE: PACKAGE BODY
DEFECT CAUSE: N/R

ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: SWOLLEN/CRACKED ENCAPS. DUE TO HI TEMP EXPOSURE [200C VS. 175C THERMAL COEF. TRANSITION TEMP] CAUSED OPEN WIRES. S.C. X.

MFEF REPORT NUMBER: 1810

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 5400
DEVICE TECHNOLOGY: TTL
PACKAGE: EPOXY DIP
QUANTITY FAILED: 11

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: SIGNETICS DATE CODE: 7407
SCREEN CLASS: S/R COMPLEXITY: 4 G
NUMBER OF PINS: 14
TIME TO DETECTION: 0

FAILURE INDICATOR: N/R
DEFECT DESCRIPTION: BROKEN

FAILURE MODE: WIRE
DEFECT CAUSE: N/R

ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFEF REPORT NUMBER: 1811

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: GATE
PART NUMBER: 5400
DEVICE TECHNOLOGY: TTL
PACKAGE: EPOXY DIP
QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
CIRCUIT TYPE: N/R
PART MANUFACTURER: SIGNETICS DATE CODE: 7407
SCREEN CLASS: S/R COMPLEXITY: 4 G
NUMBER OF PINS: 14
TIME TO DETECTION: 0

FAILURE INDICATOR: N/R
DEFECT DESCRIPTION: LIFTED

FAILURE MODE: WIREBOND DIE PAD
DEFECT CAUSE: N/R

ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X. BALL BOND FAILED AROUND PERIPHERY OF, RATHER THAN UNDER, AREA OF AU-AL INTERFACE (PERIPHERAL OPEN).

MFLF REPORT NUMBER: 1812

MFLF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 39

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7410
 SCREEN CLASS: S/R COMPLEXITY: 4 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: BROKEN

FAILURE MODE: PACKAGE LEAD FRAME/EXTERNAL LEADS
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: SCR. CLASS X. BRACKET CORRODED PLATING BY CHLORIDE IONS CAUSING STRESS CORROSION CRACKING OF ALLOY-42 SILVER-PLATE LEADS.

MFLF REPORT NUMBER: 1813

MFLF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 7400
 DEVICE TECHNOLOGY: TTL
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7410
 SCREEN CLASS: S/R COMPLEXITY: 4 G
 NUMBER OF PINS: 14
 TIME TO DETECTION: 333

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: BROKEN

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
 ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFLF REPORT NUMBER: 1814

MFLF REPORT DATE: 7603

DATA SOURCE: PA-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 95101
 DEVICE TECHNOLOGY: ECL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 3

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7344
 SCREEN CLASS: D COMPLEXITY: 4 C
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE
 DEFECT DESCRIPTION: VOIDS

FAILURE MODE: METAL OXIDE STEP/CUTOUT
 DEFECT CAUSE: ELECTROMIGRATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: HI COLLECTOR RESISTANCE DUE TO MASS TRANSPORT OF ALUM., ESP. AT OXIDE STEPS, RESULTING IN VOIDS & HILLOCK FORMATION.

MFLF REPORT NUMBER: 1815

MFLF REPORT DATE: 7603

DATA SOURCE: PA-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 95101
 DEVICE TECHNOLOGY: ECL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7344
 SCREEN CLASS: D COMPLEXITY: 4 C
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE
 DEFECT DESCRIPTION: VOIDS

FAILURE MODE: METAL OXIDE STEP/CUTOUT
 DEFECT CAUSE: ELECTROMIGRATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: HI COLLECTOR RESISTANCE DUE TO MASS TRANSPORT OF ALUM., ESP. AT OXIDE STEPS, RESULTING IN VOIDS & HILLOCK FORMATION.

MFLF REPORT NUMBER: 1816

MFLF REPORT DATE: 7603

DATA SOURCE: PA-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 95101
 DEVICE TECHNOLOGY: ECL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 4

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7344
 SCREEN CLASS: D COMPLEXITY: 4 C
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE
 DEFECT DESCRIPTION: VOIDS

FAILURE MODE: METAL OXIDE STEP/CUTOUT
 DEFECT CAUSE: ELECTROMIGRATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: HI COLLECTOR RESISTANCE DUE TO MASS TRANSPORT OF ALUM., ESP. AT OXIDE STEPS, RESULTING IN VOIDS & HILLOCK FORMATION.

MFEF REPORT NUMBER: 1817

MFEF REPORT DATE: 7603

DATA SOURCE: PA-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 10501
 DEVICE TECHNOLOGY: ECL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 5

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: D
 NUMBER OF PINS: 16
 TIME TO DETECTION: 720

APPLICATION ENV: N/R

DATE CODE: 7346
 COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE
 DEFECT DESCRIPTION: VOIDS

FAILURE MODE: METAL OXIDE STP/CUTOUT
 DEFECT CAUSE: ELECTROMIGRATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: HI COLLECTOR RESISTANCE DUE TO MASS TRANSPORT OF ALUM., FSP. AT OXIDE STPFS, RESULTING IN VOIDS & HILLOCK FORMATION.

MFEF REPORT NUMBER: 1818

MFEF REPORT DATE: 7603

DATA SOURCE: PA-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 1662
 DEVICE TECHNOLOGY: FCL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: D
 NUMBER OF PINS: 16
 TIME TO DETECTION: 1800

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE
 DEFECT DESCRIPTION: OHMIC

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: HIGH EMITTER RESISTANCE OF OUTPUT TRANSISTOR DUE TO NON-UNIFORM SIL. DEPOSITION ON EMITTER CONTACT.

MFEF REPORT NUMBER: 1819

MFEF REPORT DATE: 7603

DATA SOURCE: PA-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 1662
 DEVICE TECHNOLOGY: ECL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI
 SCREEN CLASS: D
 NUMBER OF PINS: 16
 TIME TO DETECTION: 1800

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE
 DEFECT DESCRIPTION: PINHOLE

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: ELECTROMIGRATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: CURRENT STRESS

REMARKS: EMITTER-BASE SHUNT OF OUTPUT TRANSISTOR DUE TO PIT FORMATION.

MFEF REPORT NUMBER: 1820

MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: HUGHES
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: OTHER LEAKAGE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: DIE BRK
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: FAILED DUE TO EXCESSIVE DRAIN-TO-SOURCE LEAKAGE CURRENT.

MFEF REPORT NUMBER: 1821

MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 2

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: HUGHES
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: OTHER LEAKAGE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: DIE BRK
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: FAILED DUE TO EXCESSIVE DRAIN-TO-SOURCE LEAKAGE CURRENT.

MFFF REPORT NUMBER: 1822

MFFF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 3

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: HUGHES
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: INTERMITTENT SHORT COMB
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: GATE-SOURCE, GATE-DRAIN SHORTS THRU OXIDE BROKEN DUE TO THIN SI ISLES, THIN OXIDE AT ISLE BASE, AL FILAMENT BRIDGE, OR ESD

MFFF REPORT NUMBER: 1823

MFFF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: HUGHES
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: INTERMITTENT SHORT COMB
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: GATE (P6)-TO-DRAIN (P1,P-CHAN. TRANS) SHORT DUE TO MASK MISALIGNMENT, WITH METAL OVERLAPPING P-CHAN. DRAIN DIFFUSION.

MFFF REPORT NUMBER: 1824

MFFF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 2

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: HUGHES
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: INTERMITTENT SHORT COMB
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: GATE (P6)-TO-DRAIN (P1,P-CHAN. TRANS) SHORT DUE TO MASK MISALIGNMENT, WITH METAL OVERLAPPING P-CHAN. DRAIN DIFFUSION.

MFFF REPORT NUMBER: 1825

MFFF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 5

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: HUGHES
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: INTERMITTENT SHORT COMB
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: GATE-SOURCE, GATE-DRAIN SHORTS THRU OXIDE BROKEN DUE TO THIN SI ISLES, THIN OXIDE AT ISLE BASE, AL FILAMENT BRIDGE, OR ESD

MFFF REPORT NUMBER: 1826

MFFF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 2

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: HUGHES
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: INTERMITTENT SHORT COMB
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: GATE (P6)-TO-DRAIN (P1,P-CHAN. TRANS) SHORT DUE TO MASK MISALIGNMENT, WITH METAL OVERLAPPING P-CHAN. DRAIN DIFFUSION.

MFEF REPORT NUMBER: 1827

MFEF REPORT DATE: 7e06

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: HUGHES
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: INTERMITTENT SHORT COMB
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: GATE [P6]-TO-DRAIN [P1,P-CHAN. TRANS] SHORT DUE TO MASK MISALIGNMENT, WITH METAL OVERLAPPING P-CHAN. DRAIN DIFFUSION.

MFEF REPORT NUMBER: 1828

MFEF REPORT DATE: 7e06

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 2

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: HUGHES
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: INTERMITTENT SHORT COMB
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: GATE [P6]-TO-DRAIN [P1,P-CHAN. TRANS] SHORT DUE TO MASK MISALIGNMENT, WITH METAL OVERLAPPING P-CHAN. DRAIN DIFFUSION.

MFEF REPORT NUMBER: 1829

MFEF REPORT DATE: 7e06

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 12

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: HUGHES
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: INTERMITTENT SHORT COMB
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: GATE-SOURCE, GATE-DRAIN SHORTS THRU OXIDE BROKEN DUE TO THIN SI ISLES, THIN OXIDE AT ISLE BASE, AL FILAMENT BRIDGE, OR ESD

MFEF REPORT NUMBER: 1830

MFEF REPORT DATE: 7e06

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: HUGHES
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: INTERMITTENT SHORT COMB
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: GATE [P6]-TO-DRAIN [P1,P-CHAN. TRANS] SHORT DUE TO MASK MISALIGNMENT, WITH METAL OVERLAPPING P-CHAN. DRAIN DIFFUSION.

MFEF REPORT NUMBER: 1831

MFEF REPORT DATE: 7e06

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 2

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: HUGHES
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: INTERMITTENT SHORT COMB
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: GATE-SOURCE, GATE-DRAIN SHORTS THRU OXIDE BROKEN DUE TO THIN SI ISLES, THIN OXIDE AT ISLE BASE, AL FILAMENT BRIDGE, OR ESD

MTEF REPORT NUMBER: 1832

MTEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 6

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: HUGHES
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 3 C

FAILURE INDICATOR: INTERMITTENT SHORT COMB
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: GAT' OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: GATE-SOURCE, GATE-DRAIN SHORTS THRU OXIDE BROKEN DUE TO THIN SI ISLES. THIN OXIDE AT ISLE BASE. AL FILAMENT BRIDGE. OR ESD

MTEF REPORT NUMBER: 1833

MTEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: HUGHES
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 3 C

FAILURE INDICATOR: OTHER - MISC
 DEFECT DESCRIPTION: FAULT (N)

FAILURE MODE: DIE BULK
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: FAILED DUE TO EXCESSIVE DRAIN-TO-SOURCE LEAKAGE CURRENT.

MTEF REPORT NUMBER: 1834

MTEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: HUGHES
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 3 C

FAILURE INDICATOR: INTERMITTENT SHORT COMB
 DEFECT DESCRIPTION: MASK FAULT

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: GATE DRAIN-TO-DRAIN (P1,P-CHAN. TRANS) SHORT DUE TO MASK MISALIGNMENT. WITH METAL OVERLAPPING P-CHAN. DRAIN DIFFUSION.

MTEF REPORT NUMBER: 1835

MTEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 6

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: HUGHES
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 3 C

FAILURE INDICATOR: INTERMITTENT SHORT COMB
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: GATE-SOURCE, GATE-DRAIN SHORTS THRU OXIDE BROKEN DUE TO THIN SI ISLES. THIN OXIDE AT ISLE BASE. AL FILAMENT BRIDGE. OR ESD

MTEF REPORT NUMBER: 1836

MTEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 24

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NO. AMER ROCKWELL INT.
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 3 C

FAILURE INDICATOR: INPUT LEAKAGE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: CLASSIVATION
 DEFECT CAUSE: IONIC SHIFT

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: INPUT AT INPUT PROTECTION NETWORK & TRANS. DRAIN DUE TO MIGRATION OF MOBILE IONS TO CLASSIVATION-SI02 PASSIV. INTERFACE.

MFEF REPORT NUMBER: 1837

MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 21

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MO. AMER ROCKWELL INT. DATE CODE: 0
 SCREEN CLASS: 2 COMPLEXITY: 3 C
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT LEAKAGE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: CLASSIFICATION
 DEFECT CAUSE: IONIC DRIFT

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: LKG. AT INPUT PROTECTION NETWORK & TRANS. DRAIN DUE TO MIGRATION OF MOBILE IONS TO CLASSIFICATION-S102 PASSIV. INTERFACE.

MFEF REPORT NUMBER: 1838

MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 3

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MO. AMER ROCKWELL INT. DATE CODE: 0
 SCREEN CLASS: 2 COMPLEXITY: 3 C
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT LEAKAGE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: CLASSIFICATION
 DEFECT CAUSE: IONIC DRIFT

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: LKG. AT INPUT PROTECTION NETWORK & TRANS. DRAIN DUE TO MIGRATION OF MOBILE IONS TO CLASSIFICATION-S102 PASSIV. INTERFACE.

MFEF REPORT NUMBER: 1839

MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 21

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MO. AMER ROCKWELL INT. DATE CODE: 0
 SCREEN CLASS: 2 COMPLEXITY: 3 C
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT LEAKAGE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: CLASSIFICATION
 DEFECT CAUSE: IONIC DRIFT

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: LKG. AT INPUT PROTECTION NETWORK & TRANS. DRAIN DUE TO MIGRATION OF MOBILE IONS TO CLASSIFICATION-S102 PASSIV. INTERFACE.

MFEF REPORT NUMBER: 1840

MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MO. AMER ROCKWELL INT. DATE CODE: 0
 SCREEN CLASS: 2 COMPLEXITY: 3 C
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: OTHER LEAKAGE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: DIE BULK
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: FAILED DUE TO EXCESSIVE TRANSISTOR DRAIN LEAKAGE CURRENT.

MFEF REPORT NUMBER: 1841

MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 4

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: WESTINGHOUSE DATE CODE: 0
 SCREEN CLASS: 2 COMPLEXITY: 3 C
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: LIFTED

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: INTERMETALLIC FORMATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: "PURPLE PLACET" FORMATION CAUSED LIFTING OF GOLD BALL BONDS FROM ALUMINUM CHIP METALLIZATION.

MFF REPORT NUMBER: 1842

MFF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 4

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: WESTINGHOUSE
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: SURFACE
 DEFECT CAUSE: IONIC DRIFT

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: THRESHOLD VOLTAGE SHIFTS LIKELY DUE TO MOBILE POSITIVE IONIC CONTAMINATION.

MFF REPORT NUMBER: 1843

MFF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 2

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: WESTINGHOUSE
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: LEAKAGE
 DEFECT DESCRIPTION: IMPURITIES

FAILURE MODE: SURFACE
 DEFECT CAUSE: IONIC DRIFT

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: DEGRADATION OF N-CHANNEL TRANSISTORS DUE TO LEAKAGE CAUSED BY MOBILE POSITIVE ION CONTAMINATION.

MFF REPORT NUMBER: 1844

MFF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 2

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: WESTINGHOUSE
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: LEAKAGE
 DEFECT DESCRIPTION: IMPURITIES

FAILURE MODE: SURFACE
 DEFECT CAUSE: IONIC DRIFT

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: DEGRADATION OF N-CHANNEL TRANSISTORS DUE TO LEAKAGE CAUSED BY MOBILE POSITIVE ION CONTAMINATION.

MFF REPORT NUMBER: 1845

MFF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: WESTINGHOUSE
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: INPUT LEAKAGE
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: EXTREMELY DEGRADED PROTECTION NETWORK CHARACTERISTICS DUE TO A SHORT IN THE INTERNAL CIRCUITRY.

MFF REPORT NUMBER: 1846

MFF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 2

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: WESTINGHOUSE
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: INPUT LEAKAGE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: EXTREMELY DEGRADED PROTECTION CIRCUITRY DUE TO LOW REVERSE BREAKDOWN IN THE CIRCUIT.

MFEF REPORT NUMBER: 1847

MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 9

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: WESTINGHOUSE
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: SURFACE
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: POSITIVE ION CONTAMINATION CAUSED DEGRADED N-CHANNELS IN CONTEXT OF INC. LKG. CUR., DEC. BKN VOLT. & DFC. THRESH. VOLT.

MFEF REPORT NUMBER: 1848

MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 2

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: WESTINGHOUSE
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: LIFTED

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: INTERMETALLIC FORMATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: "PURPLE PLACU" FORMATION CAUSED LIFTING OF GOLD BALL BONDS FROM ALUMINUM CHIP METALIZATION.

MFEF REPORT NUMBER: 1849

MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 2

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: WESTINGHOUSE
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: LEAKAGE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: SURFACE
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: SOFT BKN. CHARACTERISTICS, REDUCED BKN. VOLT., & N-CHAN. THRESH. VOLT. SHIFT DUE TO POSITIVE IONIC CONTAMINATION.

MFEF REPORT NUMBER: 1850

MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 2

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: WESTINGHOUSE
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: LEAKAGE
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: P-CHANNEL DEGRADATION DUE TO EXCESSIVE LEAKAGE RESULTING FROM DRAIN-TO-SOURCE SHORT. EXACT FAILURE SITE NOT FOUND.

MFEF REPORT NUMBER: 1851

MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 3

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: WESTINGHOUSE
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: LIFTED

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: INTERMETALLIC FORMATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: "PURPLE PLACU" FORMATION CAUSED LIFTING OF GOLD BALL BONDS FROM ALUMINUM CHIP METALIZATION.

MFEF REPORT NUMBER: 1852

MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 5

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: WESTINGHOUSE
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 1

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE
 DEFECT DESCRIPTION: FAULT (SOC)

FAILURE MODE: SURFACE
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: POSITIVE MOBILE ION CONTAMINATION CAUSED THRESHOLD VOLTAGE SHIFTS.

MFEF REPORT NUMBER: 1853

MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: WESTINGHOUSE
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: GAIN CHAR OUT OF TOLERANCE
 DEFECT DESCRIPTION: N/R

FAILURE MODE: N/R
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: SHIFT IN KN PARAMETER, [RELATED TO GAIN], WHERE KN REPRESENTS SLOPE OF CURVE OF SQ. ROOT OF DRAIN CURRENT VS. GATE VOLT.

MFEF REPORT NUMBER: 1854

MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: WESTINGHOUSE
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: LIFTED

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: INTERMETALLIC FORMATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: "PURPLE PLAGUE" FORMATION CAUSED LIFTING OF GOLD BALL BONDS FROM ALUMINUM CHIP METALIZATION.

MFEF REPORT NUMBER: 1855

MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 4

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: WESTINGHOUSE
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: LIFTED

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: INTERMETALLIC FORMATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: "PURPLE PLAGUE" FORMATION CAUSED LIFTING OF GOLD BALL BONDS FROM ALUMINUM CHIP METALIZATION.

MFEF REPORT NUMBER: 1856

MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: WESTINGHOUSE
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: FAULT (SOC)

FAILURE MODE: SURFACE
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: POSITIVE ION CONTAMINATION CAUSED DEGRADED N-CHANNELS IN CONTEXT OF INC. LKG. CUR., DEC. BDN VOLT. & DEC. THRESH. VOLT.

MFFF REPORT NUMBER: 1857

MFFF REPORT DATE: 7504

DATA SOURCE: PA-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 14007
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 5

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
 SCREEN CLASS: C-1 COMPLEXITY: 3 C
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: HI LVL OUTPUT CURRENT OUT OF TOLERANCE FAILURE MODE: SURFACE
 DEFECT DESCRIPTION: IMPURITIES DEFECT CAUSE: IONIC DRIFT
 ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: EXC. DRAIN-SOURCE CURRENT AT Q6 DUE TO NET POS. CHARGE AT S1/S102 INTERFACE (CATION DRIFT). THICK FIELD OXIDE CONTAMIN.

MFFF REPORT NUMBER: 1858

MFFF REPORT DATE: 7508

DATA SOURCE: PA-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 14007
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 8

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
 SCREEN CLASS: C-1 COMPLEXITY: 3 C
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: HI LVL OUTPUT CURRENT OUT OF TOLERANCE FAILURE MODE: SURFACE
 DEFECT DESCRIPTION: IMPURITIES DEFECT CAUSE: IONIC DRIFT
 ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: EXC. DRAIN-SOURCE CURRENT AT Q6 DUE TO NET POS. CHARGE AT S1/S102 INTERFACE (CATION DRIFT). THICK FIELD OXIDE CONTAMIN.

MFFF REPORT NUMBER: 1859

MFFF REPORT DATE: 7508

DATA SOURCE: PA-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 14007
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 2

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
 SCREEN CLASS: C-1 COMPLEXITY: 3 C
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: HI LVL OUTPUT CURRENT OUT OF TOLERANCE FAILURE MODE: SURFACE
 DEFECT DESCRIPTION: IMPURITIES DEFECT CAUSE: IONIC DRIFT
 ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: EXC. DRAIN-SOURCE CURRENT AT Q6 DUE TO NET POS. CHARGE AT S1/S102 INTERFACE (CATION DRIFT). THICK FIELD OXIDE CONTAMIN.

MFFF REPORT NUMBER: 1860

MFFF REPORT DATE: 7508

DATA SOURCE: PA-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 14007
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
 SCREEN CLASS: C-1 COMPLEXITY: 3 C
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: SURFACE
 DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
 ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: EXC. DRAIN-SOURCE CURRENT AT Q6 DUE TO NET POS. CHARGE AT S1/S102 INTERFACE (CATION DRIFT). THICK FIELD OXIDE CONTAMIN.

MFFF REPORT NUMBER: 1861

MFFF REPORT DATE: 7508

DATA SOURCE: PA-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 14007
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
 SCREEN CLASS: C-1 COMPLEXITY: 3 C
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

FAILURE INDICATOR: LOW LVL INPUT CURRENT OUT OF TOLERANCE FAILURE MODE: GATE OXIDE DIELECTRIC
 DEFECT DESCRIPTION: MASH FAULT DEFECT CAUSE: PROCESS FLAW
 ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: OHMIC PATH THRU O1 GATE OXIDE AS ALUMINUM PENETRATED OXIDE FLAW (PROBABLY A PINHOLE).

MFF REPORT NUMBER 1862

MFF REPORT DATE: 7705

DATA SOURCE: PO-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: PPOXY DIP
 QUANTITY FAILED: 0

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: S/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7446
 COMPLEXITY: 3 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: BROKEN

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
 ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFF REPORT NUMBER: 1863

MFF REPORT DATE: 7705

DATA SOURCE: PO-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: PPOXY DIP
 QUANTITY FAILED: 34

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: S/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7446
 COMPLEXITY: 3 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: BROKEN

FAILURE MODE: WIRE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
 ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFF REPORT NUMBER: 1864

MFF REPORT DATE: 7705

DATA SOURCE: PO-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: PPOXY DIP
 QUANTITY FAILED: 4

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: S/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7446
 COMPLEXITY: 3 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: CHANNEL

FAILURE MODE: SURFACE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: SCREEN CLASS X, N-FET CHANNELING. DEFECT CAUSE COULD NOT BE DETERMINED.

MFF REPORT NUMBER: 1865

MFF REPORT DATE: 7705

DATA SOURCE: PO-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: PPOXY DIP
 QUANTITY FAILED: 45

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: S/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 7446
 COMPLEXITY: 3 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: CHANNEL

FAILURE MODE: SURFACE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: SCREEN CLASS X, N-FET CHANNELING. DEFECT CAUSE COULD NOT BE DETERMINED.

MFF REPORT NUMBER: 1866

MFF REPORT DATE: 7607

DATA SOURCE: PO-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 4

DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: C-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: IONIC DRIFT

ACTIVATING STRESS A: VOLTAGE STRESS
 ACTIVATING STRESS B: TEMPERATURE

REMARKS: IONIC DRIFT IN GATE OXIDE OF N-CHANNEL TRANSISTORS.

MFEF REPORT NUMBER: 1867

MFEF REPORT DATE: 7508

DATA SOURCE: PA-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: C-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: NON-FUNCT, IN-OP, CATAST
 DEFECT DESCRIPTION: SHORT (NOC)

FAILURE MODE: WIRF
 DEFECT CAUSE: WORKMANSHIP

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: FAILED AT PIN 10 DUE TO WIRF DIF SHORT CAUSED BY SI-AL ALLOYING AS A RESULT OF INSUFFICIENT INITIAL CLEARANCE.

MFEF REPORT NUMBER: 1868

MFEF REPORT DATE: 7508

DATA SOURCE: PA-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: C-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: HI LVL INPUT CURRENT OUT OF TOLERANCE
 DEFECT DESCRIPTION: PINHOLE

FAILURE MODE: GATE OXIDE/DIELECTRIC
 DEFECT CAUSE: PROCFSS FLAW

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: N/R

REMARKS: STRIPE-TO-P-WELL SHORT AT PIN 10 DUE TO ALUMINUM PENETRATION THROUGH OXIDE PINHOLE.

MFEF REPORT NUMBER: 1869

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: S/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7444
 COMPLEXITY: 3 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: CRACKED

FAILURE MODE: DIF BULK
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: CRACKED DIE CAUSING PINS 6 & 13 TO SHORT TO PIN 7. SCREEN CLASS Y.

MFEF REPORT NUMBER: 1870

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 1

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: S/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7444
 COMPLEXITY: 3 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: LIFTED

FAILURE MODE: WIREBOND DIE PAD
 DEFECT CAUSE: INTERMETALLIC FORMATION

ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
 ACTIVATING STRESS B: N/R

REMARKS: OPEN "PERIPHERAL" BALL BOND I.E. FAILED AROUND PERIPHERY OF AL-AL INTERFACE RATHER THAN BENEATH THE BALL BOND. SC. CL. X

MFEF REPORT NUMBER: 1871

MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: EPOXY DIP
 QUANTITY FAILED: 10

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: S/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7444
 COMPLEXITY: 3 G

FAILURE INDICATOR: N/R
 DEFECT DESCRIPTION: BROKEN

FAILURE MODE: WIRF
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFF REPORT NUMBER: 1872

MFF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: PPOV DIP
 QUANTITY FAILED: 10

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: S/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 7444
 COMPLEXITY: 3 G

FAILURE INDICATOR: NON-FUNCT. IN-OP. CATAST
 DEFECT DESCRIPTION: CHANNEL

FAILURE MODE: SURFACE
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: SCREEN CLASS Y. INPUT DIODE CHANNELING.

MFF REPORT NUMBER: 1873

MFF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 15

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NO. AMER ROCKWELL INT.
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: SURFACE
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: POSITIVE ION CONTAMINATION CAUSED DEGRADED N-CHANNELS IN CONTEXT OF INC. LKG. CUR., DEC. BKN VOLT. & DEC. THRESH. VOLT.

MFF REPORT NUMBER: 1874

MFF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 24

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NO. AMER ROCKWELL INT.
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: SURFACE
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: POSITIVE ION CONTAMINATION CAUSED DEGRADED N-CHANNELS IN CONTEXT OF INC. LKG. CUR., DEC. BKN VOLT. & DEC. THRESH. VOLT.

MFF REPORT NUMBER: 1875

MFF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 21

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NO. AMER ROCKWELL INT.
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: SURFACE
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: POSITIVE ION CONTAMINATION CAUSED DEGRADED N-CHANNELS IN CONTEXT OF INC. LKG. CUR., DEC. BKN VOLT. & DEC. THRESH. VOLT.

MFF REPORT NUMBER: 1876

MFF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: INVERTER
 PART NUMBER: 4007
 DEVICE TECHNOLOGY: CMOS/SOS
 PACKAGE: CERAMIC/METAL DIP
 QUANTITY FAILED: 21

DATA-TYPE: STEP STRESS
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NO. AMER ROCKWELL INT.
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 3 G

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: SURFACE
 DEFECT CAUSE: CONTAMINATION

ACTIVATING STRESS A: TEMPERATURE
 ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: POSITIVE ION CONTAMINATION CAUSED DEGRADED N-CHANNELS IN CONTEXT OF INC. LKG. CUR., DEC. BKN VOLT. & DEC. THRESH. VOLT.

MFEF REPORT NUMBER 1877

MFEF REPORT DATE: 7508

DATA SOURCE: PI-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER: 74175
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 8

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: D
 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
 SCREEN CLASS: N/R COMPLEXITY: 24 G
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1878

MFEF REPORT DATE: 7502

DATA SOURCE: PM-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 9309
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 0
 SCREEN CLASS: B-2 COMPLEXITY: 16 G
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MFEF REPORT NUMBER: 1879

MFEF REPORT DATE: 7502

DATA SOURCE: PM-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 9309
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 0
 SCREEN CLASS: B-2 COMPLEXITY: 16 G
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MFEF REPORT NUMBER: 1880

MFEF REPORT DATE: 7502

DATA SOURCE: PM-0002 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: MULTIPLEXER
 PART NUMBER: 9312
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 0
 SCREEN CLASS: B-2 COMPLEXITY: 17 G
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MFEF REPORT NUMBER: 1881

MFEF REPORT DATE: 7508

DATA SOURCE: PI-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 9300
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/R N/R
 QUANTITY FAILED: 12

DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 0
 SCREEN CLASS: N/R COMPLEXITY: 40 G
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1882

MFEF REPORT DATE: 7508

DATA SOURCE: PI-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 9300
 DEVICE TECHNOLOGY: TTL
 PACKAGE: N/P N/R
 QUANTITY FAILED: 19

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: FAIRCHILD SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 40 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1883

MFEF REPORT DATE: 7508

DATA SOURCE: PI-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 5495
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC N/R
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: NATIONAL SEMI
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 37 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1884

MFEF REPORT DATE: 7508

DATA SOURCE: PI-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 54164
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC N/R
 QUANTITY FAILED: 11

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 36 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1885

MFEF REPORT DATE: 7508

DATA SOURCE: PI-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 5495A
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC N/R
 QUANTITY FAILED: 17

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 37 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1886

MFEF REPORT DATE: 7508

DATA SOURCE: PI-0003 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: SHIFT REGISTER
 PART NUMBER: 54164
 DEVICE TECHNOLOGY: TTL
 PACKAGE: HERMETIC N/R
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: TEXAS INSTRUMENTS
 SCREEN CLASS: N/R
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 36 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1887

MFEF REPORT DATE: 7508

DATA SOURCE: PI-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 5495A
DEVICE TECHNOLOGY: TTL
PACKAGE: HERMETIC N/R
QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: TEXAS INSTRUMENTS
SCREEN CLASS: N/R
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 37 C

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1888

MFEF REPORT DATE: 7508

DATA SOURCE: PI-0003 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: SHIFT REGISTER
PART NUMBER: 5496
DEVICE TECHNOLOGY: TTL
PACKAGE: HERMETIC N/R
QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: TEXAS INSTRUMENTS
SCREEN CLASS: N/R
NUMBER OF PINS: 16
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 39 C

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1889

MFEF REPORT DATE: 7508

DATA SOURCE: PQ-0004 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER:
DEVICE TECHNOLOGY: HTTL
PACKAGE: CERAMIC FPK
QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: D
SCREEN CLASS: D
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 2 C

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MFEF REPORT NUMBER: 1890

MFEF REPORT DATE: 7508

DATA SOURCE: PQ-0004 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER:
DEVICE TECHNOLOGY: HTTL
PACKAGE: CERAMIC DIP
QUANTITY FAILED: 9

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: D
SCREEN CLASS: D
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 2 C

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MFEF REPORT NUMBER: 1891

MFEF REPORT DATE: 7508

DATA SOURCE: PQ-0004 SOURCE: COMPONENT LEVEL
DEVICE FUNCTION: BUFFER
PART NUMBER:
DEVICE TECHNOLOGY: HTTL
PACKAGE: CERAMIC DIP
QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
CIRCUIT TYPE: N/R
PART MANUFACTURER: D
SCREEN CLASS: D
NUMBER OF PINS: 14
TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
COMPLEXITY: 2 C

FAILURE INDICATOR: MECHANICAL ANOMALY
DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MEFF REPORT NUMBER: 1896

MEFF REPORT DATE: 7504

DATA SOURCE: PQ-0004 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER:
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: JK
 PART MANUFACTURER:
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 12 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/A

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MEFF REPORT NUMBER: 1897

MEFF REPORT DATE: 7504

DATA SOURCE: PQ-0004 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER:
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 14

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: JK
 PART MANUFACTURER:
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 12 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MEFF REPORT NUMBER: 1898

MEFF REPORT DATE: 7505

DATA SOURCE: PQ-0004 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: FLIP-FLOP
 PART NUMBER:
 DEVICE TECHNOLOGY: TTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 6

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: JK
 PART MANUFACTURER:
 SCREEN CLASS: D
 NUMBER OF PINS: 16
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 16 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS:

MEFF REPORT NUMBER: 1899

MEFF REPORT DATE: 7503

DATA SOURCE: PQ-0004 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MEFF REPORT NUMBER: 1900

MEFF REPORT DATE: 7503

DATA SOURCE: PQ-0004 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: HTTL
 PACKAGE: CERAMIC FPK
 QUANTITY FAILED: 3

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: D
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MEEF REPORT NUMBER: 1901

MEEF REPORT DATE: 7504

DATA SOURCE: PQ-0004 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: HTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 1

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: EXPANDABLE
 PART MANUFACTURER:
 SCREEN CLASS: 2
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 C

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MEEF REPORT NUMBER: 1902

MEEF REPORT DATE: 7502

DATA SOURCE: PQ-0004 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: HTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: 2
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 C

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MEEF REPORT NUMBER: 1903

MEEF REPORT DATE: 7502

DATA SOURCE: PQ-0004 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER:
 DEVICE TECHNOLOGY: HTL
 PACKAGE: CERAMIC DIP
 QUANTITY FAILED: 10

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER:
 SCREEN CLASS: 2
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 6 C

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MEEF REPORT NUMBER: 1904

MEEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4011A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC METAL DIP
 QUANTITY FAILED: 2

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: 8-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MEEF REPORT NUMBER: 1905

MEEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL
 DEVICE FUNCTION: GATE
 PART NUMBER: 4011A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC METAL DIP
 QUANTITY FAILED: 5

DATA-TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/R
 PART MANUFACTURER: RCA
 SCREEN CLASS: 8-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 0

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 C

FAILURE INDICATOR: MECHANICAL ANOMALY
 DEFECT DESCRIPTION: FAULT (NOC)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/R

ACTIVATING STRESS A: N/R
 ACTIVATING STRESS B: N/R

REMARKS: PACKAGE IS NON-HERMETIC SEAL.

UNIT NUMBER: 101

REF REPORT DATE: 7505

DATA SOURCE: FAULT SOURCE COMPONENT: FAULT
 DEVICE FUNCTION: LOGIC
 PART NUMBER: 471 A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: CERAMIC METAL DIE
 QUANTITY FAULT: 1

DATA TYPE: ENVIRONMENTAL
 CIRCUIT TYPE: N/A
 PART MANUFACTURER: RCA
 SCREEN CLASS: E-1
 NUMBER OF PINS: 14
 TIME TO DETECTION: 1

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 4 G

FAILURE INDICATOR: MECHANICAL ADHESION
 DEFECT DESCRIPTION: FAULT (NO)

FAILURE MODE: PACKAGE SEAL
 DEFECT CAUSE: N/P

ACTIVATING STRESS A: N/A
 ACTIVATING STRESS B: N/A

REMARKS: PACKAGE SEAL IS NON-DESCRIPTIVE.

UNIT REPORT NUMBER: 101

REF REPORT DATE: 7512

DATA SOURCE: UNKNOWN SOURCE COMPONENT: FAULT
 DEVICE FUNCTION: LOGIC
 PART NUMBER: 471 A
 DEVICE TECHNOLOGY: CMOS
 PACKAGE: HERMETIC
 QUANTITY FAULT: 1

DATA TYPE: DEF EVALUATION
 CIRCUIT TYPE: BINARY
 PART MANUFACTURER: VARIOUS
 SCREEN CLASS: N/A
 NUMBER OF PINS: 16
 TIME TO DETECTION: 1

APPLICATION ENV: N/R

DATE CODE: 0
 COMPLEXITY: 58 G

FAILURE INDICATOR: N/A
 DEFECT DESCRIPTION: IMPERFECTION

FAILURE MODE: PACKAGE
 DEFECT CAUSE: PROCESS FLAW

ACTIVATING STRESS A: N/A
 ACTIVATING STRESS B: N/A

REMARKS: X-RAY EVALUATION REVEALS CRACKS IN MATERIAL WITHIN PACKAGE.

MICROCIRCUIT DEVICE RELIABILITY

DIGITAL EVALUATION AND
FAILURE ANALYSIS DATA

Appendix A

RECOMMENDED SCREENS/TESTS FOR VARIOUS
DIE-RELATED AND PACKAGE-RELATED FAILURE MODES

APPENDIX A

TABLE A: RECOMMENDED SCREENS/TESTS FOR VARIOUS
DIE RELATED FAILURE MODES

Constituent Failure Mode	Stabilization Bake	Temp Cycle/ Thermal Shock	Const Accel/ Mech Shock	Reverse Bias and Temp	Dynamic Op and Temp	X-ray
Surface Contamina- tion/Leakage	●			●	●	
Foreign Material/ Particles			●			●
Inversion/Channeling	●			●		
Crystal Imperfections	●	●			●	
Cracked Die		●	●		●	
Oxide Pinholes		●		●	●	
Oxide Faults		●			●	
Oxide Short/ Breakdown		●		●	●	
Passivation Defects		●			●	
Diffusion Anomaly				●	●	
Diffusion Spikes				●	●	
Mask Faults					●	
Open Metallization (Excluding Corrosion)		●		●	●	
Metallization Shorts		●		●	●	
Electromigration					●	

TABLE B: RECOMMENDED SCREENS/TESTS FOR VARIOUS
PACKAGE RELATED FAILURE MODES

Constituent Failure Mode	Stabilization Bake	Temp Cycle/ Thermal Shock	Const Accel/ Mech Shock	Seal Test	Reverse Bias and Temp	Dynamic Op and Temp	X-ray	External Visual
Broken Wirebond		●			●	●		
Lifted Wirebond		●			●	●		
Over-Bonded		●				●		
Misplaced Bond					●	●		
Multiple Bond			●					
Intermetallic Formation	●	●				●		
Die Attach Defect		●	●			●	●	
Broken Wire		●			●	●		
Shorted Wire					●	●		
Poor Lead Dress		●	●					
Corroded Wire		●			●	●		
Nonhermetic Seal		●	●	●				
Excessive Seal Mat'l								●
External Lead Defect								●

MICROCIRCUIT DEVICE RELIABILITY

DIGITAL EVALUATION AND
FAILURE ANALYSIS DATA

Appendix B

FAILURE EVENT HIERARCHY STRUCTURE

APPENDIX B

FAILURE EVENT HIERARCHY STRUCTURE

Failure Indicators

Failure Modes

Open

Verified Open
 Unknown
 Input
 Output
 Supply
 Combination
 Other
 Intermittent Open
 Unknown
 Input
 Output
 Supply
 Combination
 Other

Short

Verified Short
 Unknown
 Input
 Output
 Supply
 Combination
 Other
 Intermittent Short
 Unknown
 Input
 Output
 Supply
 Combination
 Other

Degraded

Unknown
 Leakage
 Unknown
 Input
 Output
 Supply
 Combination
 Other
 Parameter Out-of-Tolerance
 Unknown
 Output Voltage

Die

Unknown
 Bulk Aspects
 Unknown
 Junction
 Diffusion
 Epitaxial Layer
 Crystal
 Metalization
 Unknown
 Oxide Step
 PROM Fuze
 Contact Window
 Polysilicon Conductor
 Multi-Level Interface
 Multi-Layer Interface
 Bond Pad
 Oxide/Dielectric
 Unknown
 Gate Oxide/Dielectric
 Field Oxide/Dielectric
 Capacitor Dielectric
 Crossover Dielectric
 Glassivation
 Surface

Interconnects

Unknown
 Wire
 Wirebond
 Unknown
 Wirebond At Die Pad
 Unknown
 Die Pad Heel
 Die Pad Neck
 Wirebond At Lead Frame
 Unknown
 Lead Frame Heel
 Lead Frame Neck
 Beam Lead
 Unknown
 Die Pad
 Lead Frame
 Bump

APPENDIX B

FAILURE EVENT HIERARCHY STRUCTURE (Cont'd)

Failure Indicators (Cont'd)

Degraded (Cont'd)

- Input Voltage
- Input Offset Voltage
- Switching Characteristics
- Supply Current
- Propagation Delay
- Input Offset Current
- Gain Characteristics
- Dynamic Characteristics

Functional Anomaly

- Unknown
- Non-Func., Inoper., Catastrophic
- Improper Output
 - Unknown
 - Improper Logic State
 - Memory Data Loss
 - Improper Output Switching
 - Fluct./Oscillating Output
 - Distorted/Clipped Output
 - Crosstalk
- Output Latching
 - Unknown
 - Output Latched High
 - Output Latched Low

Mechanical Anomaly

Defect Description

- Brittle
- Broken
- Channel
- Chipout
- Cracked
- Crazed
- Delaminated
- Dislocation
- Etch Fault
- Etch Pit
- Extraneous Wire
- Flaking
- Fracture
- Hillock
- Impurities

Failure Modes (Cont'd)

Package

- Unknown
- Package Seal
- Package Lid
- Package Body
- Package Lead
- Die Attach Bond
- Package Encapsulant

Defect Cause

- Contamination
- Corrosion
- Dendrite Growth
- Dielectric Breakdown
- Electrolysis
- Electromigration
- Fatigue
- Growback
- Intermetallic Formation
- Ionic Drift
- Microplasma
- Oxidation
- Thermal Diffusion
- Workmanship
- Process Flaw
- Troubleshooting

Failure Activating Stress

- Electrical Overstress
- Electrostatic Discharge
- Current Stress
- Humidity
- Mechanical Stress
- Pressure
- Radiation-Nuclear
- Radiation-Electromagnetic
- Radiation-X-ray
- Temperature
- Thermo-Mechanical Stress
- Voltage Stress
- Voltage and Current Stress

APPENDIX B

FAILURE EVENT HIERARCHY STRUCTURE (Cont'd)

Defect Description (Cont'd)

Lifted
Loose
Mask Fault
Misaligned/Misplaced
Missing
Necked Down
Ohmic
Open (NOC)
Particle Bridge
Peeling
Pinhole
Pipe
Scratch
Short (NOC)
Smear
Spike
Stacking Fault
Voids
Zapped-Evaporated
Fault (NOC)
Flashover-Arc
Punch Through
Poor Plating
Discolored
Corroded
Melted-Fused
Diffusion Fault
Reversed
Deformed
Hole
Tunneled
Inadequate
Exposed
Mismarked
Swollen

MICROCIRCUIT DEVICE RELIABILITY

DIGITAL EVALUATION AND
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Appendix C

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ADDITIONAL RAC SERVICES

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		14.	
15. Supplementary Notes This is one of a series of microcircuit device reliability publications.			
16. Abstract (Limit: 200 words) This compendium of digital SSI/MSI microcircuit device reliability is separated into two volumes. Part I deals with general summaries and detailed listings which address the various aspects of burn-in and environmental/screening tests at the component level. Devices are classified according to test types and are arranged by test source, device function, operational type, device manufacturer, and commercial part number. Part II contains summaries of failure analysis data based upon failure indicators, failure modes, failure defects, failure defect causes, and failure activating stresses, as well as a detailed listing of verified failure events as derived from device- and equipment-level testing.			
17. Document Analysis a. Descriptors Integrated Circuits Burn-In Testing Reliability Environmental/Screening Testing Digital Devices Failure Analysis Results b. Identifiers/Open-Ended Terms Digital Detailed Microcircuit Device Reliability Compendium c. COSATI Field/Group			
18. Availability Statement Approved for Public Release; Distribution Unlimited. Available from RAC or NTIS.		19. Security Class (This Report) UNCLASSIFIED	21. No. of Pages 776
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